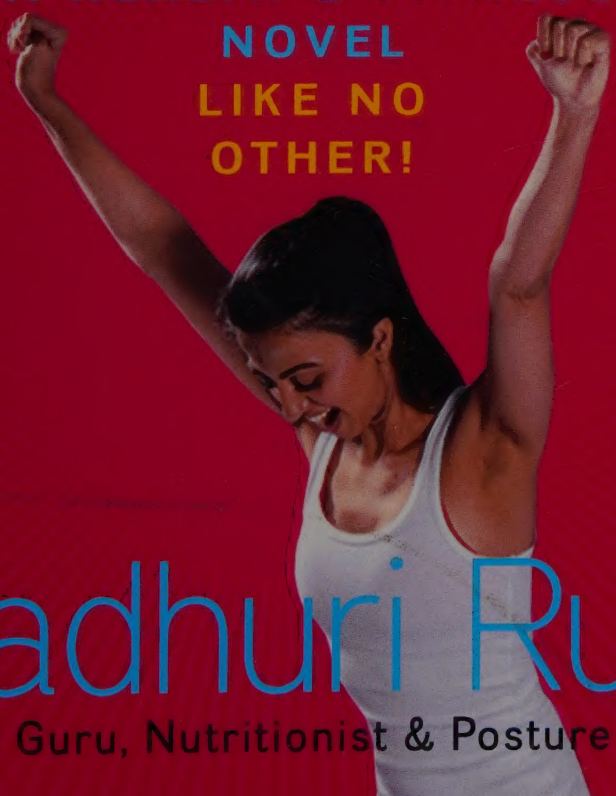
WHO STOLE MY CALORIES?

A HEALTH & FITNESS NOVEL LIKE NO OTHER!



Madhuri Ruia

Fitness Guru, Nutritionist & Posture Expert

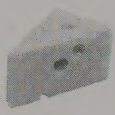
Would you like to receive our FREE Jaico monthly newsletter?
Drop us a mail with your name, contact details and comments at:
whatsnew@jaicobooks.com.
We look forward to hearing from you.

WHO STOLE MY CALORIES?

Madhuri Ruia

JAICO PUBLISHING HOUSE

WHO
STOLE
MY
CALORIES?

WHO STOLE MY CAL  RIES?

A HEALTH & FITNESS NOVEL LIKE NO OTHER!

Madhuri Ruia

JAICO PUBLISHING HOUSE

Ahmedabad Bangalore Bhopal Bhubaneswar Chennai
Delhi Hyderabad Kolkata Lucknow Mumbai

DISCLAIMER

This is a work of fiction. Names, characters, events and incidents are either the products of the author's imagination or used in a fictitious manner. This book is not intended as a substitute for the medical advice of physicians. The reader should regularly consult a physician in matters relating to his/her health and particularly with respect to any symptoms that may require diagnosis or medical attention.

Published by Jaico Publishing House
A-2 Jash Chambers, 7-A Sir Phirozshah Mehta Road
Fort, Mumbai - 400 001
jaicopub@jaicobooks.com
www.jaicobooks.com

© Madhuri Ruia

WHO STOLE MY CALORIES?
ISBN 978-81-8495-402-9

First Jaico Impression: 2016

No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical including photocopying, recording or by any information storage and retrieval system, without permission in writing from the publishers.

Page design and layout: R. Ajith Kumar, Delhi

Printed by
SAP Print Solutions Pvt. Ltd.
28 A, Laxmi Industrial Estate, S. N. Path
Lower Parel (W), Mumbai - 400 013

To the infinite and unimaginable abilities
of a determined human body

Author's Note

Who Stole My Calories? is fitness fiction and a book of immense hope for anyone who seeks health for themselves and others. The obese and the health-challenged fight a difficult and lonely battle. Social pressures could turn such people into complex and sensitive personalities. Clearly, more can be done to unlock the infinite possibilities of their determined health. WSMC looks beyond done-to-death diet charts and rises above the debates about this, that or other exercise form. Discovering the magic of healthy life becomes far easier by battling deep-rooted feelings of denial and perceived impossibilities; feelings that could sap energies and steal healthy-happy calories even before trans-fatty and junk diets do.

This book is a culmination of my fitness experiences, challenges, inspirations, learnings and interactions of the past two decades. Read the book as fiction, delve deep into the fitness conversations, or reread some of the tricky science that I have attempted to keep simple. Science will always be science though! With every chapter you will be soaking in the ideas and positive critique generously contributed by Team Integym, family, clients, and other stalwarts of the fitness industry.

Contents

	Prologue	xi
1.	Reality Check	1
2.	A Beginning	7
3.	The First Steps	20
4.	The First Two Weeks	33
5.	Cha Bar Conversations: Protein	54
6.	Cha Bar Conversations: Food and Energy	64
7.	The World of Fats & Oils	75
8.	Cha Bar Conversations: Water and Colorful Vegetables	86
9.	Dealing with Emergencies	94
10.	Handling Hospitality	108
11.	Delving Deep into Nutrition	117
12.	The Importance of Strength Training	127
13.	Delving Deep into Exercise	145
14.	Triumph	160
15.	Natasha Gets Her First Client	178
16.	Helping Raghu Regain His Health	192

17. Raghu's Progress 199
18. The Effects of Stress 207
19. Spreading the Message of Health 213

Prologue

At 18, Natasha Sharma was Ms Teen – tall, slender, flexible and bikini-fit. Her dusky features, beautiful doe eyes and sharp cheekbones held a magnetism that made heads turn.

Natasha, brimming with intelligence and confidence, enriched every gathering with her irrepressible verve and razor-sharp repartees. She excelled at academics, dramatics and more, which was why she had quickly become a role model for her peers.

If she had any flaw at all, it was perhaps that she couldn't understand those who weren't as "perfect" as she was. She was particularly oblivious to the trauma of obesity and scoffed at how some people allowed themselves to become fat.

Obesity, she felt, happened only to other people. Natasha knew that she could never be obese or unproductive. Little did she know of what lay in store for her – that in the coming 15 years, her life, or rather, her hormones would run riot, altering the way her body functioned and ending up making her another person altogether, the same obese person she once gibed at.

She would look different, feel different and behave differently. Her confidence would give way to despair, diffidence and crying spells. She would enter a confounding world of diets, nutritionists, fitness professionals, bariatric and cosmetic surgeons, trichologists

and psychoanalysts. Her flexible body, which once enabled her to touch her toes and perform 180-degree splits easily, would become rigid with lethargy and weak with fat. She didn't know how big a binge eater she would eventually become – that she would soon devour several burgers, slabs of chocolate or packets of biscuits in frenzy. She didn't know that because of insulin resistance, she would wake up to uncontrollable sweet cravings. Severe acne and snoring would disturb her and gnaw at her sense of aesthetics, beauty and body image. Natasha would be left feeling weak and defeated. Her confidence would take a severe beating.

The night of the teen beauty pageant seemed Natasha's most magical night ever. In addition to her title, she had won Miss Congeniality, Miss Fitness Addict and Miss Photogenic. Modeling contracts started to pour in, and with them, the promise of money and fame.

A month after Natasha won the title and a modeling contract with a top-notch cosmetics company, her mother killed herself.

Meera, Natasha's mother had been addicted to tranquilizers for more than 10 years. Benzodiazepine was the difficult name of the drug commonly found in anti-anxiety medication. Initially, Meera took them to mask anxiety attacks, and then, they became a habit. She needed more every day to feel the same calm and peace. At the time that Natasha became Miss Teen, Meera was struggling to cover her extreme depression and a new feeling of disconnection, the "I don't feel quite real" feeling that often follows addictions to anti-anxiety medication.

She had explained all of this to Susan, Natasha's good friend and someone Meera trusted and got along with very well. "I know you will take care of Natasha. It is becoming extremely difficult for me to share Natasha's glory, Susan. I am going on an extended vacation to sort things out and be in a different space to guide Natasha, you and Pradeep (Natasha's brother)," Meera had forewarned.

Life for Natasha came to a chilling halt and stood still for what seemed like an eternity. Talent, verve and confidence were replaced by anxiety, crying spells and gluttony. Dancing and gymnastics were unabashedly put off for another day. At first, it was the "why me?" feeling that tore her apart, but soon, she began feeling helpless and withdrew into her shell.

Susan was not as talented as Natasha, but was more grounded, thanks to her middle-class upbringing. Her father was an army officer and had always encouraged her to be organized and choose the path of maximum learning and achievement. After Meera aunty's death, Susan decided that she would always be in control of her life. She would never need tranquilizers or other addictive substances. She would run her life on a few basic principles. First, get to the depth of everything you do, whether a hobby, assignment, school work or listening to the news. Second, find out more, be extremely curious and help everyone you meet to do the same. Finally, when people you know and care for are in control, it's easier for you to stay in control and without tranquilizers.

At 30, Susan was an encyclopedia of knowledge. Apart from human resources and nutrition, her knowledge encompassed scuba diving and playing the sitar. For her, health was the antithesis to depression and suicide. One of the items on her bucket list was to help 10 people gain control of their lives in her unique style of bold, out-of-the-box, see-things-through-till-the-end type of counseling. So far, she had helped four employees in her PR firm regroup and become profitable for her firm by becoming, as she called it, "their mind". What was even more exciting for Susan was that these four people went on to inspire many more. And now, it was Natasha's turn. How many lives could Natasha change after she changed her own? Susan wondered. Little did Susan know that her small step would empower Natasha to take the fitness world by storm in the coming years, chart a new

destiny for herself, her family and shape the fitness destiny of the corporate world. It was about time she became Natasha's mind until Natasha's mind was ready to take over.

ONE

Reality Check

12 Years Later

Thirty-year-old Natasha had put on so much weight that she couldn't bear to look at herself. She felt she looked awful in everything. Her physical appearance had altered drastically, with a heavy double chin, pigmented skin and embarrassing bald patches. Shopping was a frustrating exercise. Black was her only option, for black clothes made her look somewhat slimmer. How she longed to wear purples, oranges and neons!

At a humongous 117 kg, Natasha fretted about what she could possibly do to knock off the excess weight. Her weight fluctuated in what felt like a never-ending cycle, despite the numerous efforts she had made to do something about it, before finally giving up. She stared at the television, hogged any and everything, drank and even tranquilized herself to sleep. Natasha became the proverbial couch potato.

A feeling of hopelessness overtook her as she recollected the stern warning from one of her many nutritionists. "Because you have lost and gained weight so many times, your body has

become more efficient at storing fat rather than losing it. It will be extremely difficult for you to lose weight now."

She remembered how her 5' 8" frame had weighed just 58 kg and showcased an enviable 0.7 waist-hip ratio (WHR) – her erstwhile 22-inch waist divided by her hip-size of 30 inches, resulted in a pleasing and healthy WHR of 0.7.

BOX 1: WHR – AN INDICATOR OF ABDOMINAL OBESITY

- WHR is the ratio of the circumference of the waist to that of the hips. The waist is measured just above the navel at its smallest circumference for women and at the mid point between the hipbone and lowest ribcage for men.
- WHR is a vital health statistic. It is a strong indicator of obesity and far more important than the weight on the scale. As one of the major side effects of obesity, a high WHR is a precursor to increased risks of diabetes and heart disease. In fact, the American Heart Association (AHA) considers people with high WHRs as prediabetic. According to AHA, women with a WHR of more than 0.88 and men with a ratio of more than 0.95 have an increased risk for obesity-related health problems.
- Women with a WHR of less than 0.7 may be more immune to the risks of menopause or irregular menarche.
- The World Health Organization (WHO) states that abdominal obesity is defined as a WHR above 0.90 for men and above 0.85 for women, or a body mass index (BMI) above 30.0.

BOX 2: CALCULATE YOUR WHR

- Measure your waist girth just above your navel if you are female and at the midpoint between the lowest rib and the highest point of the hip bone if you are male.
- Next, measure your hip girth at the widest portion of the buttocks.
- Divide the waist measurement by the hip measurement. The resulting figure is your WHR.

Over the years, however, her nape became black and gritty; her armpits and inner thighs had become darker in color, and her elbows and knees had darkened and become flaky. The doctor had warned her that those were the first signs of insulin resistance. Her menstrual cycle began to go haywire. She had become as lethargic as a slug. Her bulging and shapeless body hated exercise. She hated her physique.

The hormonal imbalance escalated with the years and eventually governed Natasha's life. She experienced changes in

her sleep-wake cycles that made her eat ravenously throughout the day. The regular use of tranquilizers to aid sleep dulled her reaction time, sense of humor and concentration.

Irritability and random conduct took over. To meet her pocket expenses, all Natasha managed to earn was some income from model coordination. Ironically, this required her to source fresh, fit and smart people for an advertising agency on a part-time basis. The job was a painful reminder of what she had been and what she had lost. Fortunately, finances at home were good, but the sermonizing words of her father and brother were unwelcome and sent her into frequent sulks.

Over time, everyone just left Natasha alone, perhaps a little too alone for her special challenges, particularly the challenges of obesity.

Natasha looked forward to being alone, especially at night on her veranda, hiding in her own little world. The expansive view was exhilarating. Natasha loved to watch the waves lashing the shore in the near distance, and the amber, auburn and burnt orange hues of the setting sun that would electrify the skyline and energize a weary population returning home after a hard day's work.

She liked moonlit nights the best, for she believed the moon bathed the skyline of the dark, gloomy night with hope. She craved that hope within – the hope that she would feel like a woman again, that from being plain undesirable, she could regain her glorious looks. Earlier, she had a long list of suitors and had always played hard to get, but nobody gave her a second look now.

When Natasha's mother was alive, both of them had lovingly tended the rich foliage and flowers on the veranda. Natasha remembered many enchanting conversations amid the colorful and lush bougainvillea, hibiscus, morning glory and large,

unusual palms that once landscaped and energized this balcony. Mum would talk about the power and indefatigable energy of the sun, and how this energy would flow like life into little leaves, flowers and vegetables. That is why plants always grew in the direction of the sun, she would say. The sun's radiance, along with water and oxygen, gave vegetables and fruit their bright color pigments, from dark green to orange, purple and blue. These colors, in turn, were powerhouses of vitamins, antioxidants and nature's nutrients. "We should all be like the sun, powerful, energetic and radiant in all walks of life," Meera used to say, and Natasha used to be just that. She turned everything she touched to radiant gold.

Now, however, Natasha had neither the time for the powerful energy of the sun or the skyline, nor the inclination to look after the flowers, leaves and plants in her veranda. All she had were nerve-wracking questions about her mother and no answers: Why had Meera taken her life? Had Natasha become too busy with her heady success to sense her mother's loneliness and depression? Was she responsible for the unhappiness that had goaded Meera to end her life? Natasha was stuck in the quagmire of her guilt and self-doubt, paralyzed into inaction by all the confusion swirling in her mind. The only happiness she had these days came from food.

After Meera passed away, Natasha was no longer interested in the things that had interested her mother. Thus, the plants, denied of water and nurture, given no energy or nutrition, slowly withered away. On the eve of her 30th birthday, Natasha sat on her bare, moonlit veranda. Her companions were two bottles of white wine, two bowls of fried cashew nuts and salted pistachios and a pack of spicy, double-fried banana chips.

BOX 3: RED WINE VS. WHITE WINE

Like Natasha, many women prefer white wine to red wine. However, the hype around red wine might just be unwarranted. Both white and red wines have the same number of calories, roughly 82 for 100 ml, and the same potential to make one gain weight. Red wine has the advantage of containing resveratrol, a powerful antioxidant that is found in red grapes. However, the benefits of this antioxidant may be insignificant in the context of excess consumption. It is better to get the resveratrol from natural food and lower your overall intake of wine.

Furthermore, the glycemic index (GI) of red wine is marginally higher than that of white. The GI of a food tells us the rate at which glucose is absorbed from the food into the bloodstream. The slower the rate at which glucose is absorbed, the better it is for your health. A higher GI indicates a faster rate of absorption. This can negate any health benefits of a food ingredient.

Therefore, the resveratrol benefit may not be all that it is touted to be. Enjoy your red wine for the mood, the food and the flavor... Don't get taken in by resveratrol.

The doorbell suddenly rang at midnight. A startled Natasha went to the door, as her family was asleep. Through the peephole, Natasha recognized a familiar face – Susan Diaz Walia.

TWO

A Beginning

Susan was Natasha's friend from the Ms Teen era. They had studied and partied together, and had been inseparable. They thought they were friends for life, but after Meera's death, the equation had changed.

Susan couldn't accept the fact that Natasha had given in to her shock, grief and hormone upheaval so easily. She never quite forgot how Natasha would inspire her when they were young. Natasha was smart, savvy and always on the move. Unlike Natasha, however, Susan hadn't taken success for granted and had worked hard for it.

She was now a much-admired achiever – the HR head of a PR firm, and out of her own passion for the subject, a trained nutrition expert. Susan worked hard, stayed fit, ate nourishing food and took care of her career and family.

Meera Sharma, Natasha's mother and Susan had been good friends. When Natasha was out on her shows, modeling assignments or dance practice, Susan and Meera would chat for long hours on the veranda. A few weeks before taking her life, Meera had confided in Susan about a gnawing unhappiness in her life.

Susan, who after all, was only 18 at that time, had struggled to understand Meera.

Given her close ties with both mother and daughter, Susan had never forgotten them. Meera had been a close friend and Natasha had been Susan's inspiration as she worked hard to achieve her dreams. Susan now felt compelled to help Natasha. She knew that she had to try something extraordinarily different, because Natasha had an extraordinary and extremely stubborn condition. That is why the normal route of meeting nutritionists and personal trainers had failed despite several attempts.

Unknown to anyone save her husband Aakash, for the past six months, Susan had been having recurring dreams of Meera aunty weeping as she looked at Natasha. Susan had begun feeling that perhaps, she had let both Natasha and her mother down by not helping Natasha cope with her mother's death. She knew Natasha's emotional state was one of the biggest reasons for her to give up on life. And Susan felt compelled to help Natasha, perhaps because of an intuition she did not know she possessed.

Susan planned to draw upon her own experience and training to help Natasha get in touch with her feminine self again. She was going to show Natasha the light, even if she resisted. Susan had reached a phase in her life where she was truly happy with herself, her image in the mirror, her health and even her Waist Hip Ratio; she now wanted Natasha to experience the charm of invincible health.

Susan had witnessed many stories of unfit and obese people. Her opinion was that even if the tools to change existed, people often lacked the substance to bring about the change. A diet, for Susan, was only a tool; changing the mindset was the substance for change. She intended to nurture this substance in Natasha. She knew Natasha was resentful and resistant to change, but Susan suspected that constant failure to lose weight had discouraged Natasha, and a morale boost and a helping hand would work wonders.

Susan missed and wanted her best friend back. She was willing to do all it took to bring her friend out of the vicious quagmire in which she was stuck.

BOX 4: SUSAN'S PHILOSOPHY: CHANGING THE MINDSET

Understanding diet principles is more important than following diet charts. Diet charts are difficult to follow in the long term, because you tend to follow them blindly. The brain is rarely excited about doing anything blindly, doing things it does not understand or about which it is not convinced. Understanding the principles of why and how often you need to eat helps to form deep, mindful connections in the brain. Mindfulness with your nutrition, as with other things, increases the stickiness quotient of your diet. This stickiness goes a long way in overcoming addictions to junk food, greasy savories and alcohol, among a host of other things.

Principles provide perspective, and perspectives improve comprehension and internalization. It is often said that changes in dietary habits must be driven from within. People are known to embark on a diet or fitness plan only when they supposedly have this feeling for health from inside. Sometimes, the wait for this internal motivation can lead to endless procrastination. Understanding diet principles can shorten this wait.

Perspectives also provide you with a solid and consistent dietary framework you can come back to, especially when you slip up. This can be extremely comforting. Imagine a place where your body can restart immediately, even if you were to go on a binge because it is an old habit, especially if you have been binging for a long time. Binge-eating behavior patterns and signals lurk somewhere in the brain's emotional cortex. For instance, if from your childhood, you have liked to eat brownies

when you do well or want to let your hair down, then the brain will make you crave brownies when you do something well. Understanding deep-seated diet principles and nutritional mindfulness can help you overcome childhood and adolescent connections to eating.

Connecting with the "why" of nutrition and diets to drive permanent mind-body connections is a far more trustworthy way of bringing about changes in your health than following the "how to" of diet charts. Following the "how to" is the substance that drives fads and quick fixes.

Natasha, however, wasn't sure about her feelings for Susan. Questions about Susan cluttered her mind. What was it about Susan – Dislike? Jealousy? Was Susan responsible for Natasha's obesity?

Natasha felt that Susan had let her down and manipulated her. She had taken over Natasha's mantle and become everything Natasha always wanted to be – an elegant, beautiful, successful achiever. Though the two still kept in touch, Natasha had shut Susan out of her life, as she had everyone else. Though Natasha didn't know it, Susan had remained in touch with Natasha's family and had kept up with Natasha's problems, both physical and psychological.

Susan now barged in and exclaimed, "Happy birthday, Natasha!"

"Thanks," said Natasha grudgingly. " What brings you here? Not my birthday or presents I am sure?

Ignoring the jibe, Susan replied cheerfully, "In fact, yes I am here for your birthday and I have a present!"

"Really?" asked Natasha, looking at her friend's empty hands. I can't see anything.

"Come here, Natasha, please sit with me," Susan responded. "I am here to give you the kind of gift only a friend can give."

Taken aback, Natasha stammered, "What is that..."

"The gift of compassion," replied Susan. "We have to make you fit and fine again. Don't you feel that too? There are no 'can't dos' or 'won't dos'," she continued.

"But I haven't asked you to..." Natasha retorted.

"I know it seems intrusive, but you're my friend. You used to be my role model. And I have had enough of your obesity. This is the last minute that you will be lazy ever. We will work hard and help you lose 10 kg in two months' time."

Natasha looked appalled as Susan continued. "You will lose weight at the rate of around 1% of your body weight a week. So, if you are 120-odd kg now, you should lose about 8–10 kg in eight weeks."

At Natasha's horror-stricken face, Susan said encouragingly, "I will stay with you for the next two months and both of us are going to help each other transform for the better. You will lose your first 10 kg with me," said Susan.

"Have you any idea of the magnitude of the weight I have to lose? I have to lose 50 kg or more. You will be with me for the first 10 kg; what after that?" asked Natasha.

"Don't worry! Both of us will work out how you will tackle the next 10 kg and so on, until losing weight and becoming fit becomes your life's mission and an automatic response, so that you will not need help but will seek and find answers to all your health-related problems. Believe me, you will discover a way of never having to give up on your weight," assured Susan.

Dumbfounded Natasha didn't know where to look or what to think. "Phew," she sighed, nodding her head in utter disbelief. "Is she saying that I, Natasha will be fit and fine again?" Natasha

thought. "The last day of being lazy? I mean I don't even lift a pin these days," she said aloud.

"Natasha," said Susan reaching for her calculator, "Let's see how much weight you have to lose."

"How do you calculate that?" inquired Natasha.

"I am calculating your ideal body weight. Your height in centimeters is 171. For women, the ideal body weight is calculated as their height in centimeters less 105; while for men, it is calculated as height in centimeters less 100. By this calculation, your ideal body weight is 66 kg," said Susan.

"The last time I weighed myself, I was 117 kg, Susan. That means I need to lose 51 kg! That's almost as much as I used to weigh when I was 18," exclaimed Natasha. "I have to lose weight equal to a whole person!"

"Natasha, trust me, it is much easier to think of 10 kg every two months than muddle your focus by getting bogged down by 51 kg, or an entire person, and what have you.

"Stick to your first 10 kg for July and August, and answers for the remaining 43 kg will emerge. You know what, Natasha, I have developed a unique method that drives motivation over and over again," continued Susan.

"Even if I slip?" quipped Natasha.

"Yes, even when you slip, there is a way to pick yourself up and move on," assured Susan.

Much as she was taken aback and struck by disbelief, Natasha was surprised that she was, in fact, feeling excited and happy in her heart.

Her body language and facial expression softened. She smiled. She visualized a slimmer, more capable her. However, could she bear to be with Susan? After all, she had always felt that Susan had abandoned their friendship, stolen her opportunities and deserted her.

"Eight weeks," Susan declared, "is all you have to knock off 10 kg."

"But, Susan, is this doable?" Natasha inquired. "I have not managed to lose beyond a maximum of 6 kg over three months, and even then, I was gaining and losing all the time."

"Don't think too much, Natasha. Just start taking small, powerful steps," Susan replied comfortingly. "Forget moping, feeling sorry and asking too many 'why did mom' questions. These feelings distract you from your efforts.

"Remember that your mom had her own reasons. You did not kill her. You are alive, but are nowhere near living," she continued.

"Now, I am going to stay with you every day and every minute. I will be your mind until your mind takes over, thinks differently, and you start having fun just being you," Susan declared.

Natasha became pensive. Susan held her hand and took her to the veranda. "Together," she said, leaning against the elegant glass handrail, "we are going to see the light at the end of this tunnel. You agree, don't you, Nats, that there is always a light at the end of the tunnel?" Natasha gazed at the sea and whispered, "Yes, but I never thought of it like that. I felt that there was no door out of this obesity. I was so stuck."

In the meantime, Natasha's dad and her brother Pradeep had come in to wish her, knowing smiles on their faces. Natasha was starting to feel on top of the world. Pradeep hugged her and presented her a six-month gym membership. Dad's gift was an XL-sized (two sizes smaller than her current size) Velocity swimming costume to wear after working out for six months in the gym.

Natasha chuckled gleefully. Trust Susan to do something quirky like this! Susan's magical presence was clearly casting a spell on Natasha. Aloud, she exclaimed, "Wow! I think this is the most in-your-face intervention in the history of health transformations."

A delightful, light-hearted atmosphere prevailed in the Sharma balcony. Wine glasses clinked. Balloons and confetti blossomed. The single-point agenda was to leave no stone unturned to get Natasha slim, fit and beautiful. She would once again transform into her original self – a born winner.

Susan and Natasha sat talking on the balcony after her brother and dad retired to sleep.

"So, what's the agenda?" Natasha asked, sipping her wine. Her father and Pradeep had gone to bed and Susan and she were still talking. "What kind of crazy diet will you put me on? I have done it all – starving, fasting, zero carbs, high protein, juicing, I really have starved, fasted, tried all kinds of diets. And, when do we start?" Natasha asked.

"Tomorrow," Susan said.

"Let me guess... with the diet recall, right?" Natasha sniggered.

Natasha sat behind her desk, wore a pair of glasses, got a paper and pen and mimicked some questions that nutritionists normally ask: "How do you typically eat in the 24-hour period? What time do you rise? How much do you eat? Do you have breakfast? It's the most important meal of the day, you know."

"Wait a minute," Susan interrupted, "It's not going to be like that, Natasha. I will take a three-day video recall, which includes weekdays and weekends. I will record you on video or audio."

"Why?" Natasha asked.

"Because we need to find out 'how' you connect with eating, and not just 'how much' or 'what' you eat. To make lasting changes, we need to understand your moods and triggers for eating. We also need to know and analyze the portions of food you consume – do you know how much one cup is, or what is a portion of any food item, from a nutrition point of view? Do you eat more when you are with people or alone? All these questions cannot be answered in a typical recall. Hence, the video recall,

which will help us eradicate the root of the problem," explained Susan.

Natasha began to sense the difference in Susan's approach compared to what she had been doing until now.

"What about the recalls that I have been doing? Are they irrelevant?" Natasha inquired.

"No, not really. You need to shed a lot of weight, so we need to work on a war footing. We need to establish your relationship with food. Today is Wednesday, so we start tomorrow and video record you living your normal life on Thursday, Friday and Saturday. Here's the brief: Be normal," added Susan.

"What do you mean, be normal? I'm always normal," quipped Natasha.

"I mean, just be yourself and don't worry about losing weight. Eat as you always do, even the junk food. It's critical to understand your emotions and circumstances for the success of the 'Natasha Transformation Program'. Understand the emotions that make you binge and avoid exercise, and the circumstances that made you obese before the eating did," remarked Susan.

NATASHA'S STATISTICS: WEEK 1

Weight: 117 kg
Body fat: 52%
Height: 171 cms, 5 ft, 6.1"
Waist: 54 inches
Hips: 51 inches
Waist hip ratio: 1.05
BMI: 40
Consuming more than 3000 calories a day

The Big Diet Recall

Day 1 (Thursday)

Natasha woke up at 11 AM, an hour earlier than her usual time. She wondered what Susan had up her sleeve. Susan entered just then, with a tall glass of lime water.

"Is this good for hangovers? I drank too much last night, didn't I? I could even hear myself snoring. I have such a hangover, Susan. My head is pounding. Is there any chance I will get a normal recall?" Natasha said groggily.

"Don't worry, Natasha. Just drink this, and I'll see you at breakfast," replied Susan.

At 11:30 AM, Natasha felt much better after a cup of strong coffee. Fruit, chocolate croissants and multigrain biscuits were laid as usual on the coffee table and Susan was there with her camera.

"You are going to take pictures of what I eat and do?" Natasha inquired.

"Uh-huh," Susan expressed.

Natasha had four croissants, [almost 1200 empty, sugar-based calories] and two cups of coffee with two heaped teaspoons of white refined sugar [15 calories per teaspoon]. Susan observed Natasha was still drowsy. She gobbled her meal in less than 10 minutes.

"Would you like some oat porridge?" Susan asked.

"Yuck, you mean that viscous gruel? Give it to me when I am over 60 or when I lose my teeth, whichever is earlier," she said, adding, "Hey, guess what, Susan! I won't go to work today. I am going back to bed. I am too tired from last night."

"Natasha, how many such 'going back to bed' days do you have in a week?" Susan asked.

"Maybe two or three days. It depends on my mood and my

period cycle. I am fortunate to work part time. Frankly, the sight of the beautiful models I source for my advertising agency depresses me," she replied.

No wonder Natasha ended up drinking every day and skipped work, Susan thought.

Natasha went back to sleep and woke up at 3 PM, feeling better and more alert. She had two dry chapattis [200 carbohydrate calories] without ghee, *malai paneer kofta* [300 saturated fat calories, because the *paneer* was creamy and high in fat], one cup of cauliflower and potato vegetable [about 150 predominantly carbohydrate calories], 1 cup *dal makhani* [approximately 175 carbohydrate calories] and an entire slab of chocolate [200 high-fat, high-sugar calories]. By now, Natasha was used to Susan having a field day taking her pictures and videos.

"Natasha, you are quite a sight, you know. Eating breakfast at 12 noon and lunch at 3 PM, with so many chocolates," Susan remarked. "How about a movie this evening?" she asked. Susan noted that only half the day was over and Natasha had consumed 2150 empty calories in so-called junk food.

Susan knew that such food was devoid of lasting energy, vitamins and minerals. The excess sugar increased Natasha's insulin levels, which contributed to further weight gain, while the high amounts of saturated fat in the *malai paneer*, chocolate and croissants would increase her overall fat and blood cholesterol levels. She expected that Natasha would be hungry again quickly, as there was no sign of fiber in her diet. Her vegetable intake was negligible and included high-starch choices such as potato. There were no lean foods or complex carbohydrates, which increase satiety because they break down into glucose gradually, provide sustained energy, improve mood and concentration and balance blood sugar levels, keeping the hormone insulin in check and working well for fat loss rather than fat gain.

"What a waste that would be!" Natasha replied. "You wouldn't

get to capture the glee with which I tuck into my popcorn, Coke and *samosas* in the dark hall. Alas, you would lose three hours of how I connect with food," Natasha teased and they had a hearty laugh. Susan was relieved to see Natasha happy after so long.

That evening, Natasha had several more calories from refined flour, sugar and fat laden foods. A packet of chips [100 grams equals are 536 starch and high-fat calories] with Diet Coke [1 calorie] were among these.

Dinner was a feast. It comprised packaged mushroom soup (high in sodium, which increases water retention and puffiness), lettuce and tomato salad with high-fat thousand island dressing, sautéed, crumbed and deep-fried chicken breast with rich cheese sauce [approximately 700 calories], two white bread rolls [300 calories] and lemon soufflé [about 270 empty calories] of insignificant nutritional value.

Natasha did not exercise at all that day. What she did not realize is that empty-calorie nutrition is like a double-edged sword. On the one hand, it provides empty calories and on the other, it uses the stored nutrients in the body – the vitamins and minerals – to digest and metabolize this empty-calorie food. For instance, digesting sugar-rich food requires vitamins of the B complex group, calcium and magnesium, which are also required for strong bones. Therefore, empty-calorie nutrition steals healthy calories from our bodies for its own sustenance. Empty calories also convert to fat and cholesterol in the body. In a nutshell, empty calories keep us undernourished and overweight at the same time.

Day 2 (Friday)

This day was similar to the previous one. Breakfast included muesli. For lunch, Natasha had two *chapattis*, a bowl of dal, fried okra, rice and yogurt. At tea-time, Natasha had a glass of canned juice and fruit salad that included watermelon, kiwi, cashew nuts, banana and grapes. She was less hungover today, so she exercised,

walking around her building compound for 20 minutes, and even went to work for half the day. Again, food choices stemmed from empty-calorie nutrition and averaged at 3000 calories.

Day 3 (Saturday)

The breakfast on weekends was heavier. The Sharma family had their favorite *aloo parathas* for breakfast. Natasha had two-and-a-half *parathas* with homemade butter [amounting to 1000 calories].

Lunch comprised rich mutton biryani with *raita* and *kheer* [about 700 calories]. That night, Susan's husband, Aakash, came over and Natasha agreed to go out with them and a few other friends to a Lebanese restaurant.

At the restaurant, Natasha sighted Varun, who she used to date. He still looked smart and dapper, but she didn't. She sat diminutively throughout the evening, making small talk and wondering if she could rekindle Varun's feelings for her. The mezze platter, pita bread and falafel that Natasha usually enjoyed wasn't fun, because she felt Varun was watching. Natasha just nibbled at the delicious food. Soon, she started becoming impatient to go home. "Don't worry," Susan said, adding, "He has not recognized you yet, but he will soon. He will find the Natasha he lost."

THREE

The First Steps

Eager to start, Natasha set the alarm for 9 AM, a good two hours before schedule. As she sipped her green tea and ate an apple sprinkled with cinnamon, she told Susan, "I am getting impatient. Tell me what the program is."

"All in good time, Nats!" responded Susan.

"Oh, Susan! This is killing me... I want to start... Puh-lease, let's just start," Natasha implored.

Susan went to the bedroom and announced, "Today is waste paper basket day, Natasha.""Is she crazy?" Natasha thought, eyeing the huge waste paper tub with a smiley face that Susan was brandishing.

"What is that for?" asked Natasha.

"All the junk in your house that is making you fat will go in here," informed Susan.

"It's such a large basket. We won't be able to fill even half of it," argued Natasha.

"Don't be so sure, Natasha!" Susan replied.

They began in the kitchen with breakfast cereal.

"Here they go – two boxes of honey-coated cereal..." Susan added them in the tub.

"But honey is good for you..."

"Even honey breaks down into glucose eventually, right? Eight packets of diet chips... Six packets of diet *khakra*... Three packets of dry-fruit *chikki*."

As the tub started to fill up, Natasha screamed, "But it's dry fruit... It's healthy!"

Pat came the reply, "Not for you; for a football player – maybe."

"What! Are you going to make me play football?"

"Maybe, after six weeks..." They both burst out laughing.

Natasha was starting to have fun, chucking out the *poha* (flattened rice),, instant noodles, tetra packs of processed fruit juice, multigrain biscuits and many other eatables.

"They may have multi-grains, but most likely, they have sugar and trans fats," Susan said.

As Natasha frowned with incomprehension, Susan explained, "Trans fats are artificial fats or oils that are manufactured by adding hydrogen atoms to vegetable oil, a process called hydrogenation.. These hydrogenated or partially hydrogenated fats are solid and don't spoil easily. So, they increase the shelf life of the products they are used in."

"Oh, that's why these are used in biscuits and cookies," Natasha said. "But why does it matter if they are, what did you say, hydro...." Natasha struggled with the word.

"Hy-dro-gen-a-ted," emphasized Susan. "Fats like margarine, *vanaspati* ghee or Dalda are solid and are frequently used in convenience foods to enhance shelf life and give the foods a flaky and crunchy texture and taste. Thus, biscuits, *samosa*, croissants, doughnuts, all have trans fats."

"I am sure even French fries, *kaju katli, gulab jamuns*, all the yummy stuff has trans fats," Natasha complained.

"But they're not yummy for the body!" Susan warned. "Consuming too much of trans fat is known to harden cell walls and make them less pliant, and therefore, incapable of absorbing vitamins and minerals and potassium that is required for the digestion and absorption of carbohydrates and fats and maintain good hydration.. So, trans fats prevent the body from using healthy, robust calories that we need to absorb energy from fruits, vegetables, eggs or *paneer*."

"How do you know so much?"

"I was part of a special health drive conducted by the HR department of my company for all employees. The program focused on dietary changes for overall fitness. The results were astounding. The overall productivity of my company shot up by 8% with very simple dietary changes."

Soon, out went the sugar, jaggery, baked chips and *kurmura* (puffed rice) too. "There is a lot of starch in *kurmura*. You tend to eat too much of it because it is so light, and thus gain weight," said Susan.

Susan didn't spare the bananas or *chikoos* either. Only apples and papayas were spared because they contained soluble, sticky fiber. "Thank God for small mercies," Natasha thought.

Natasha was already tired after the disposal of the eatables that she had always considered healthy, but it wasn't over yet. Out came another bin.

"Oh gosh, Susan, where now?"

"To your bedroom."

"But my bedroom has only clothes in it," Natasha protested, "All in XXXL sizes!"

"Just clothes, Natasha? Really? Then what is all this?" said

Susan, pointing to the lingerie drawer. The lingerie drawer had much more than lingerie, such as several slabs of Swiss chocolate, granola bars and marshmallows, which Susan added to the bin. Then she pulled out a packet of sugar-coated almonds from under the bed. She extricated six bars of mint chocolate from inside the files in Natasha's filing cabinet, along with fried cashew nuts, pistachios and double-fried banana chips. Finally, she brought out three bottles of wine from inside a drawer in the veranda.

"How did you know about all this?" Natasha asked sheepishly. "Are you a chocolate sleuth?"

"I know you gorge on these at night when no one is watching and then clear away all the evidence," declared Susan.

"You are so right," Natasha sighed, adding, "Dad hates to see me eating sweets, but I crave them. So, I have them at night. The cravings drive me crazy. They are so compelling, and it's become mechanical now. I systematically discard all evidence in the bathroom bin. But Susan, I am glad the cat is out of the bag. I am so relieved to have you with me and do this junk-flushing exercise. I can't wait to start the eight-week plan."

"Remember what I said earlier. A monumental effort like yours is best done in small bites; small enough to help you focus and stay interested always."

Analyzing the Diet Recall

That evening, Natasha couldn't stop laughing at the pictures Susan had clicked. "Look at this one," she nudged Susan, holding her sides with laughter. "Oh my God! How serious I look when I am eating chocolate. The double chin looks like it is about to burst. I look like a sumo wrestler!"

"This is even funnier," Susan pointed out. "Look, you gobbled the slab of chocolate in seven minutes flat."

"See what is happening here. My nose is looking like a muffin," joked Natasha.

"That's because you are dying to get to the gooey part of the muffin," Susan said.

"And what's this, Susan, you even got my most favorite meal – banana with oodles of chocolate spread. You are such a spy," said Natasha. Susan nodded her head knowingly.

"There isn't a thing you don't know about me," said Natasha.

"Wrong," said Susan, adding, "I am waiting to know the real you."

Natasha shrugged this thought aside. She acknowledged, "Now I know what you mean about a personalized, no-escape-from-being-myself kind of recall. All this does not show up in a typical 24-hour recall that I would do in a dietician's office."

"This recall," explained Susan, "shows that you eat more to satisfy your emotions than your hunger. When you gobble your food this fast, you are satisfying a craving. When you take trouble over chewing, then you are satisfying natural hunger. You binge too much. You had six bananas and four croissants. The craving center in the brain, in a manner of speaking, intensifies, especially when you stop exercising, sleep late and feel depressed. One thing feeds another."

"Why do I have cravings?" Natasha asked.

"Cravings occur because of erratic eating and sleeping habits and emotional disturbances. Emotional disturbances and stress use the body's energy, which you replenish with quick fixes, in your case", croissants, coffee or chocolate. When you sleep late, you feel like eating in all your waking hours and yearn to nibble on junk for the quick fix. Quick fixes lack fiber, proteins and vitamins, especially those of the B-complex variety, and deplete you of the energy you get from good exercise and sleep," said Susan.

"That sounds nerdy," said Natasha.

"Yes, you have to choose between being nerdy and being obese," Susan said firmly.

"Okay," Natasha said, as she began to process this information.

"Natasha, you will feel a lot better, much more in control once you lose your first 10 kg. And then, after you lose 30 or 40 kg, you can start having a lot of fun," said Susan.

"You mean once I can wear the swimming costume that dad gifted me," Natasha said skeptically.

"Natasha, perhaps you feel that you have done better earlier and have lost much more in two months," Susan said.

"Yes, there was a time, maybe four years ago, when I lost close to 15 kg, eating only soup and salad and two walnut halves. I recall feeling so weak that I almost fainted. The next day, I did not stop eating. That was, in fact, the first time I took to croissant binging and I haven't stopped since. Susan, just think about it, at the rate of four flaky, butter-filled croissants a day," Natasha picked up the calculator on the table, "I must have consumed close to 1400 in a year and more than 5500 croissants in four years."

Susan nodded. "I like how you are thinking and decoding your binge-eating addictions. It is a good start. It is not important to lose a ton of weight without food. Nutrition and food serve as our resources and reserves. Scientific as it may sound, nutrients are chemical substances that provide our body the wherewithal to drive multiple body systems, and in turn, provide us the energy to achieve our dreams and change the course of our lives and others' lives."

"You mean croissants, *gulab jamuns* and that sludgy porridge contain chemicals?" Natasha asked.

"Yes," said Susan, checking the definition on the Web. "Here, read this."

Natasha read aloud, "A nutrient is a chemical substance that provides the body with nourishment and affects the nutritive and metabolic processes of the body. Nutrients are essential for growth, reproduction and maintenance of health."

What is a calorie then?" asked Natasha.

"It is a unit of heat that measures the amount of heat that foods will produce in the body. Essentially, it is the heat required to raise the temperature of a kilogram of water by one degree Celsius," Susan explained.

"Of course, there are types and types of calories," she added mindfully. "Foods that provide us calories of energy from power-packed protein, complex carbohydrate and healthy fat are nutrient dense. Foods that provide us empty calories from convenience and refined junk foods that contain trans fats, are calorie dense and therefore fattening."

"You mean the chemistry of taste, huh?" Natasha said. "Who would have thought *gulab jamuns* had chemistry even when it is unhealthy?"

"Natasha, let's get back to the task at hand. You have to lose 10 kg in the next two months with the power of nutrition-filled bites, with foods that are loaded with combinations of life-changing proteins, carbohydrates and fats – not trans fats and the double trouble they cause – and calories that work hard to help you lose weight, not make you sick and fat. You will also need to sleep well and wake up early to include exercise in your routine."

"Okay, Natasha said. "So, in other words, what you are saying is that:

I have to sleep right (ideally 10 PM to 6 AM), eat right – natural or non-convenience food with no trans fats every three to four hours – for maximum nutrition and the best in nutrient chemistry.

"But, croissants are so tasty, aren't they?" Natasha protested, not too keen to give up her beloved food. "Are they really that unhealthy?"

"You bet. Take a gooey chocolate croissant, for instance. It has anywhere between 10 to 20 teaspoons of refined sugar, and is packed with 200 empty calories that steal healthy nutrition calories from your body. The sugar in croissants could gush into the bloodstream within minutes and spike insulin levels, which makes you fat and sluggish quickly," Susan explained.

"So, how are healthy meals different?" asked Natasha.

"The sugars from apple, pear, papaya and complex grains such as oats, brown rice and millets take their own time to enter the blood, so you don't need to worry about insulin spikes. But sugars from *gulab jamun* and refined, starch-dense croissants could take as little as 20 minutes and cause the fattening insulin spike. Consider a meal of a slice of high-fiber, whole-wheat bread [100 calories], one large egg rich in protein and vitamin A [75 calories] and a cup of non-starchy vegetables [25 high-fiber calories]. Instead of your typical breakfast of 1000 empty, starchy calories, you can fill up on just 200 healthy, nutrient-dense calories that release sugar as energy over a three-hour period and so bypass the dangerous insulin spike," replied Susan.

"Tell me more about insulin, Susan," Natasha said.

"When sugars gush into the bloodstream, as they do with foods that are high in sugar, they cause glucose levels in the blood to spike quickly. This leads to spikes in the levels of the hormone, insulin, because insulin is required to transport glucose from the blood to the muscles and brain.

"Oh, so it's like the vehicle for glucose."

"Yes, absolutely!" Susan agreed.

"Insulin levels do not spike when high-fiber, protein-rich and healthy, nutrient-rich food enters the bloodstream gradually.

Insulin, as mentioned earlier is required to drive blood sugar into muscle cells to carry out their functions. Understand Natasha, quite simply, when you eat sugary foods, because there is so much sugar or glucose in the blood, the body needs to produce more insulin to absorb it," said Susan.

"So," asked Natasha impatiently, "Why should more insulin make you fat?"

"Because that's how it works. Abnormally high insulin levels in the body make you fat, independent of your diet. You may eat like a bird and get fat, especially around the middle, if you have high levels of insulin," replied Susan.

"I don't get it. It's not that fatty foods make you fat; it's the insulin – another player altogether," asked Natasha.

"Of course, fatty foods do make you fat, but it's not that simple," Susan went on.

"Okay, for now let me just understand this," said Natasha, and wrote it in her brand new diary:

If I give in to eating fatty, refined and sugary foods in an erratic manner for a long time, I get a fattening abnormal insulin spike. These processes in turn make me fat, not instantly, but over time, irrespective of the quality of my nutrition.

"That's a clever way to put it," remarked Susan.

"There is also something unnerving about how you eat," Susan continued. "You don't eat – you gobble your meal quickly, almost afraid that the food will vanish unless you do so. Also, you eat at odd hours, which is not in accordance with the body clock."

"How should I eat then?" Natasha asked.

"You must spend at least 20 minutes consuming a meal,

because the brain signals satiety after 20 minutes of eating food. Eating food slowly, and eating at regular intervals, will also help you control your cravings."

"Gosh Susan, I feel like a hungry hyena," Natasha exclaimed. So, to slenderize, Natasha wrote:

I have to eat meals slowly for 20 minutes at regular intervals, every three to four hours, to prevent cravings.

"Is there anything else I should keep in mind?" Natasha asked.

"Yes, there is. You feel lonely these days, don't you? See how much more you eat when you are alone, as compared to when we went out for dinner."

"That's because others were watching," Natasha said self-consciously. In her diary, she wrote:

I need to start eating with friends and family to control food choices, and portions and to avoid binging. Loneliness is making me binge.

"Sounds like a plan," exclaimed Susan. "Bonding with family or friends is an easy and fun way to neutralize stress hormones, and stress is often a cause for weight gain."

"Wow! You mean family and bonding with people are important to losing weight and looking good," said Natasha.

"Absolutely, bonding relaxes you and makes you feel happy and wanted. Thus, it becomes possible for you to do things you did not believe you could do," said Susan.

"Hey, but with whom am I supposed to eat that sludgy porridge and gooey brown rice?" asked Natasha.

"Start with me, honey," replied Susan.

"And when you are gone, I will do it with Dad and Pradeep,"

said Natasha, a naughty smile on her face. "That is going to be interesting."

Susan added, "The final part of your plan should be exercise. Exercise releases feel-good hormones or endorphins. It also reduces stress, regulates insulin activity, and therefore, reduces fat storage. As you increase the intensity of your training, it even uses existing fat stores for energy. Follow an exercise program of at least 45 minutes to an hour every day. To begin with, do this religiously for eight weeks. Eight weeks is enough to get you hooked to exercise for life because after 8 weeks your body will work harder than your will for exercise."

Natasha wrote:

Exercise makes me feel good, regulates my insulin activity and uses up fat stores. I must exercise for a minimum of eight weeks every single day before my body makes me like to exercise for a lifetime.

Susan put her arm around Natasha and said, "I understand you have been through a lot, but it is time to more than move on."

"What do you mean 'more than move on'?'" Natasha asked, puzzled.

"Moving on is passé, a cliché. We can do better than just moving on. Perhaps it's more about being able to make a difference to the lives of people. That way, it's much more fun to hold on to the new 'you', to be in control of anything for that matter, be it your weight or your health," said Susan.

"You mean it's health beyond the diet chart or exercise schedule?" asked Natasha.

"Yep, you are on the right track. But, things will become clearer as you go on."

"Okay, I cannot think that far ahead. For now, I am happy to put my house in order," affirmed Natasha.

Susan was counting this affirmation as her first success. If Natasha had made this statement on her own, she had a good chance of tasting success eventually. "Great, let's do that," she announced happily.

Natasha wrote in her diary:

I am going to put my house in order, before I do anything else. I have to get ready to be healthy and fit, so that I can motivate others too. Motivating others is the key to the success of my own program.

This was precisely the response that Susan was waiting for. Only a spontaneous declaration is the key to the success of a health plan in the long term.

Susan pulled out a beautiful spiral-bound manuscript with detailed nutrition lists of foods with calorific values, examples of healthy protiens, carbohydrates and fats, meal expansion techniques and a lot more and said, "Take a look at this, lady."

Natasha Becomes Natasha Once Again

On the cover was a picture of a young, beautiful model with a radiant smile, chiseled features, sharp abs and strong calves and deltoids. Energy was flowing from head to toe with silken elegance; the posture defied gravity. Even though the model was wearing eight-inch heels, the poise and balance were unmistakable.

"Oh, my God!" Natasha exclaimed, "This is the swimsuit round. Susan," Natasha shrieked, "You stole this picture from my collection. You drove me crazy on my birthday. I have to see this picture before I sleep to feel the real me. This is me. I mean this is how I am not... I mean was..."

Susan quickly interrupted, "Not *was*, Natasha. This *is* you and *will always* be you. Your break from being *you* was just a tad too

long. It happens to a lot of us, but now, as you said, it's time to put our house in order."

"I *am* going to do that and I *am* going to do it fast," resolved Natasha, turning the pages of the book that was going to change her life. She heaved a huge sigh of relief. For the first time in 12 long and agonizing years, Natasha saw a glimmer of hope. It felt so nice to be positive in her obese body.

Natasha knew that Susan was right. She had been living in an alien's body all this while. She was and could still be the bikini-fit girl. She had always been smart and was coveted. She could model again. Natasha's eyes welled with happy tears and she felt a familiar flutter in her heart – one that she had got used to when she was around Susan, especially when Susan was unabashedly in-your-face. The sliver of light she saw at the end of the tunnel now looked like an ever-widening beam. Everything was possible now. Natasha could scream with joy but all she did was to hug Susan nice and tight – her first hug to someone other than her mother whom she had last hugged 12 years ago. That night, Natasha slept like a baby, without tranquillizers, for the first time in 12 years.

"I want to start day one, week one now," she told Susan the next morning.

"Way to go, girl! Let's do this. You are a winner even before you start," said Susan.

FOUR

The First Two Weeks

Week 1: Health is Treasure

It was a warm Sunday evening. Susan and Natasha went for a gentle walk by the Marine Drive promenade in their exercise wear. "You look so strong and fit," Natasha said. Susan was wearing a purple, dry-fit razor back and fitted black cycling shorts. "I want to look like you, strong and fit, not skinny and gaunt as a lot of people do when they lose weight suddenly. I have to melt this roll of fat," said Natasha, holding one of the many folds on her fat waist.

Susan gave her an encouraging smile. "I have made a plan for you," she shared. "These are the salient points of my plan:

- **Diet and exercise:** Easy-to-follow instructions on what to eat, when to eat, and when and how much to exercise week by week; understanding how the macronutrients – proteins, carbohydrates and fats – work interdependently as families
- **Inspiration:** Smart counseling, scientific and awe-inspiring information about the amazing feats of the human body
- **Counseling:** Expert advice on the health benefits of certain oils such as olive, groundnut and rice bran and the

importance of omega nutrition for health, fitness and weight maintenance.

"Natasha, all of this will help you create a strong personal health focus and a significant intention for health, ultimately enabling you to lose 51 kg, which can otherwise seem like mission impossible.

"But to do all of that, Natasha you need to stay in sync with your body's health intention first."

Natasha replied, "Susan, you really are inextricably linked to your body, aren't you? Look how effortlessly you walk and move. You have strength and grace and radiate volumes of health as the sun radiates light and energy. I want this radiating picture of health for myself too. I am not being too greedy, am I?" she asked sheepishly.

"I think that is just great," Susan said, "I think it's good to be greedy about being healthy, and it's about time you really did it. Get greedy, get obsessed, go the whole hog, do what you need to. In fact, I would go to the extent of saying think 60,000 health thoughts per day. That's as many times as the brain thinks every day."

"I get it, Susan," Natasha said.

My health is what I am and what I will become. My health will relieve me of my physical discomfort and emotional trauma. Yes, my health will show me a new light at the end of the tunnel.

Susan nodded, happy that Natasha was taking the first steps in the right direction. "You know, Natasha," she shared, "We often underestimate the body's internal health intention. If you think about it, it's fascinating how the body works to achieve optimum health. The heart, a fist-sized organ, pumps about 7,000 liters

of blood per day, 2.5 million liters in a year through an arterial mileage of 100,000 kilometers... nearly 2.5 times around the earth; all in a matter of minutes. The heart does this to provide the body with a dynamic system of the magical chemistry of nutrients that we can get from food, provided we eat right. This magical chemistry serves the health of our skin, hair, nails, bones, cartilage, tendons, ligaments, muscles and nerves. It helps in the absorption of nutrients, powers the processes of temperature and blood pressure regulation and uses the calories we ingest to provide energy for breathing, digesting, understanding, sleeping and thinking."

"We use calories to sleep and think too?" Natasha asked.

"Yes, even the silent processes of sleeping, dreaming and thinking require energy and calories. That is why stress, negative thinking and lack of sleep steal our calories. Stress breaks down and weakens precious body tissues, muscles, bones and vital structures such as the heart and liver and debilitates the strong muscular infrastructure of the human body. Sugary, greasy food and lack of exercise amplify these very negative bodily responses to stress levels. What is worse, all of this makes us succumb to aging; it dehydrates and wrinkles our bodies ahead of time."

"Ah!" Natasha exclaimed. "So the idea is to work with the body by eating healthy and exercising, rather than working against it."

"Yes, Natasha. You will see that your body will respond overenthusiastically to healthy eating, regular exercise and athleticism, because of its innate health intention. The body becomes like a rock star, grooving with its audience of empowering nutrient-rich foods, antioxidants, exercises and stretches. All of these, eventually, belt out the same tune; they clap and sway together to health's rhythm, and thus, we experience a unified madness and frenzy of invincible energy, indefatigable initiative and optimum health. It is unstoppable and imperishable – the

body's belief in its ability to stay healthy, look great and achieve. Unstoppable, because every organ system and cell works 24x7 to keep the body fit, to look great and achieve. Imperishable, because this belief lives on in millions of people across the universe."

"So how do I set this tune for my body? How do I help it see the light of health at the end of the tunnel?" Natasha asked, as they began their second lap on the promenade.

Susan replied Natasha, **to see this new light, you have to focus on two golden health responsibilities – Nutrient Density and Metabolic Intensity.**

"Wow! Responsibility, huh? Do you mean the responsibility a parent feels for their children?" asked Natasha.

"Absolutely," said Susan.

"Okay, let me guess... Nutrient Density. Sorry, let me say that again. The *responsibility* of Nutrient Density is about eating healthier and the *responsibility* of Metabolic Intensity is about exercising harder," said Natasha.

"Not bad at all, but there is more to it," replied Susan. "The responsibility of Nutrient Density entails three principles:

1. **Every bit of food you put in your mouth has to have maximum nutrition.**
2. **All the macronutrients – carbohydrates, healthy fats and proteins – must be included in every meal.**
3. **You must up your antioxidant intake by eating brightly coloured vegetables and fruit for all meals including breakfast and snacks."**

"Which fruits and vegetables should I eat?" Natasha asked.

"Include lots of non-starchy vegetables, because they double the nutrient density of any meal. This must be your focus,

Natasha. Crunchy, cooked and raw vegetables are the best. Fruits, unlike vegetables, are sweet and contain the natural sugar, fructose. When you need to lose as much weight as you need to, try to limit fruit intake to not more than one serving a day."

"I thought fruit was healthy," said Natasha.

"It is per se, but how and when you use it is important. Have your fruit first thing in the morning when your body is in a fasting state. Avoid fruit in the evenings. This is because by then you would have eaten quite a bit," said Susan counting on her fingertips, "breakfast, a mid-morning snack, then lunch, which means your glycogen stores would be full."

"What's glycogen?" piped in Natasha.

"After your meals, the glucose or sugar derived via the digestion of foods is stored in small amounts in the liver and muscle in the form of glycogen. Once glycogen stores are full, the sugar from fruit or other food is stored as fat."

"Oh, that means we must watch what we eat in the evenings and night. High-fiber vegetables and high-quality protein-dense choices will be the best. As for fruits, I will begin with one a day and eat those before 4 PM," Natasha reasoned.

"That's right, Natasha! You are learning quickly."

"And to think that most of the heavy eating happens at night, whether it is a family dinner, partying or clubbing."

"Yes, that is why lifestyle becomes so important in maintaining health."

"Change my whole lifestyle? That's a tall order," Natasha said, feeling overwhelmed.

"Not really," Susan said. "Many small, healthy bites make up a healthy meal, and many healthy meals make up a large part of your lifestyle. So, try to focus on every bite. Keep it that intense. Intensity of thought brings about the change in the mindset that

you so need to succeed. There will be those who will disagree and say such thoughts are extreme and impractical, but pay no heed to them."

"That's right," agreed Natasha, "but Susan, practical thinking hasn't got me anywhere for the past 12 years. The fact is that I have gained 51 kg."

"Once you lose your excess weight, you can make a new normal which is practical and doable for life," Susan affirmed. "Trust me and just start with it. I know your mind will be filled with questions, but let's not miss the wood for the trees. All your questions will be answered as we go along."

"That sounds good," smiled Natasha.

NUTRIENT DENSITY

The three principles of nutrient density are:

1. **Get the maximum nutrition for every bite.**

   This means that you value every bite for its nutritional content. Conversely, it also means not eating food bites that do not provide nutrition.

2. **Include all of the macronutrients – proteins, carbohydrates and healthy fats – in all meals.**

   Protein is the second most abundant nutrient in the body after water. Lean protein choices such as eggs, chicken or fish, yogurt and skimmed milk are required in divided doses through the day to strengthen our cells and body structures. High-fiber carbohydrates provide you with round-the-clock energy, hour by hour.

3. **Ensure that you consume a minimum of one bright color for breakfast and snacks and three bright colors for lunch and dinner. Choose from green (the darker the green, the**

better), yellow, red, deep red, yellow-orange and purple/ blue and white. The color should come primarily from vegetables. Restrict the fruit to just one a day for the first 2 months.

Colors in fruits and vegetables are pigments that are required for photosynthesis, the process by which plants make their own food. These pigments capture the energy of sunlight, because they are sensitive to certain wavelengths, and different pigments absorb different wavelengths. The pigments, called phytochemicals, are biologically active nutrients, compounds or antioxidants. Thus, the different colors of fruits and vegetables help the body stock up on antioxidants.

However, a few aspects of consuming fruits and vegetables should be kept in mind.

- Green vegetables are very low in calories and starch and high in fiber. They are also a wonderful and rich source of vitamin C, folate and vitamins of the B group. All these nutrients can help you lose weight and clear the marks and pigments on your face over time. Leafy greens and non-starchy vegetables such as spinach, broccoli, mushroom, *doodhi* (bottle gourd), *bhindi* (ladyfinger or okra), cauliflower and cabbage are super low in calories, (just 25 calories in a cup or 200 grams), have no fat and tons of vitamins, antioxidants and phytochemicals.
- Fruits are known for their rich potassium content. Potassium helps the cells of the body remain plump and prevents dehydration and shriveling up of cells. While trying to lose weight, limit fruit intake to a medium-sized apple, pear or orange, a cup of berries like strawberry and gooseberries, ½ cup papaya or a kiwi.
- Potatoes, peas and corn are starchy vegetables and have the same composition as grains. Excessive consumption of grains and starchy vegetables eaten together, such as in *aloo paratha*, could increase fat stores over time, because of starch overload.

"Great!" Susan exclaimed. "Let's move on to our second responsibility – **Metabolic Intensity**."

The three principles of metabolic intensity are:

1. **Maintain ethical meal and sleep timings.**

   Natasha laughed, "Why 'ethical'?"

   "Your sleep timings are from 1 AM to 12 noon – aren't they unethical? You sleep in the mornings, when the body is alert, and stay awake all night when it wishes to park for rest and repair. Natasha, our body's metabolic and sleep-wake cycles go hand in glove with that of the rising and setting sun. The sun is ethical about its business and we have no reason not to be. Based on ethical sleep and wake timings, you must also follow Ethical Meal Timings (EMT) (see table).

2. Maintain **maximum nutrient density at each meal, including for the snacks and nibbles.**

   "Most of us lose a grip on nutrient density when we snack between meals, especially in the evenings," Susan remarked. "When snacking, ask yourself, how nutrient dense is this snack? Are crisps and wafers packed with nutrition, or do they just have lots of fat, sodium, and no color or nutrition, and steal healthy nutrients from our bodies? Agreed, such foods are tasty, but when you need to lose 51 kg, is it really worth it? Similarly, ask yourself how a low-calorie healthy snack, such as a salad, could be made more nutrient rich."

   "Do you mean a simple salad isn't healthy?" asked Natasha.

   "Well, a bunch of leaves may be light on calories, colorful and non-fattening, but are they offering optimal health – ask yourself that," said Susan. "Any salad can become healthier and tastier if you add to it some olive oil, skimmed cottage cheese, pine nuts and a little bit of orange juice or rind."

   "Yes, I remember... all the macronutrients at every meal, including for snacks," Natasha said.

"On the other hand, a dark green salad with a thick creamy dressing, deep fried croutons and rich bacon may not be nutrient dense, because these food choices are loaded with fat calories and not nutrients. Such salads are misleading and unhealthy."

"Susan, if you ask me, this intense focus of yours is sounding a bit obsessive," said Natasha.

"I can see where you come from, Natasha. You are probably wondering how so many people get away without doing much and making hardly any changes," said Susan.

"Yes, but I have to accept that I am different and have different challenges."

"Natasha, you can overcome these challenges. Begin to believe that, it is important that you do," said Susan.

3. **Stay extremely active; own your activity.**

"Exercise your ownership on all your activities, both structured and through the day. Structured exercise is the type you do with the intention to exercise," Susan explained. "Walking, jogging, swimming and gym workouts are structured exercises."

Natasha asked "And day-long activity is what is done during the course of the day, while at work, at home or out shopping?"

"Yes, Natasha. Be more active during the day. Own your activity around a task. Don't allow an external source, such as a car or domestic help own your activity," said Susan.

"Please explain this concept of 'owning your activity'," requested Natasha, as they walked their second-last leg.

"If you ask a domestic help to help you carry a shopping bag, as I have seen you do, it's that person who will perform the

activity. Therefore, he or she will own your activity, right? If you use your car for a distance that you can walk, the car owns your activity. Always think who or what is burning the calories for your activity. Is it you, or is it some other machine or person?" Susan explained.

"Hmm... **When I think about it, I realize that others are stealing my calories from under my nose.** And it is we who are meant to burn our calories to lose weight."

"Yes, but without letting others steal them from under your nose," said Susan, tugging at Natasha's nose.

"My God, just think of the marathoners. They own the entire 42 kilometers that they run. I have a new respect for them now, not to mention the hours of practice that help them to get there," said Natasha.

"It is only when you execute these two responsibilities, Natasha, that you will discover a new source of exponential energy and correct these multitudinous hormonal imbalances that are tricking your brain to make you fat now. You will also strengthen the body's internal mechanisms, tissues, muscles and bones to fashion a new, radiant health. Without these processes in place and working together, weight loss would be difficult to sustain," said Susan.

"Own your activity to own your dream body," exclaimed Natasha.

"Nice! Very inspiring, Natasha! Let's see you do just that, because your responsibilities of Nutrient Density and Metabolic Intensity will increase every week. The focus will be on what to choose, rather than what not to choose," said Susan.

When they returned home, Susan showed Natasha her nutrition dossier and her Nutrient Density Chart.

Natasha flipped through the information and was truly amazed at what could be achieved if she followed it systematically. The dossier began with food and nutrition choices.

What to Choose for Nutrition

1. Proteins preferably of the first class. Include skimmed milk and skimmed dairy products like ***paneer*** and hung curd; egg whites and eggs, lean poultry, fish. Plant protein combinations like brown rice and legumes are second class protein. Consume these in small quantities.
2. Complex Carbohydrate foods that are high in both insoluble and water soluble fibre including grain like finger millet (nachni), millet bajra, jowar, quinoa, amaranth rajgira, oats, brown rice, rye, bulgur and buckwheat.
3. Colourful, low-in-starch vegetables and fruit: Choose from all the colours, including yellow, green, red, orange and purple. Remember more vegetables and less fruit for starters. Go for broccoli, mushroom, red, yellow and green peppers, purple cabbage, spinach, *methi*, fenugreek, dark green lettuce, tomatoes, apples, oranges, all the berries and lots more.
4. Healthy fats for Omega nutrition like fish especially mackerel, tuna and pomfret, seeds like flaxseeds, pumpkin seeds, and nuts like almonds. Use olive oil for cooking if you have to. Better still, drizzle extra virgin oil on top of steamed veggies or salads. Remember these help with weight loss, concentration, improve immunity and period regularity.
5. Water is a nutrient. Remember to drink ½ to 1 glass every waking hour for staying well hydrated and efficient transport of all of the above nutrients, improved weight and fat loss.

Step 1

Make Your Power Health Plan (PHP)

Ethical Meal/ Workout Time	Nutrients/Food and Meal Options	Planning Meals/Exercise/ Activity

Step 2

Fill in the details of your foods and menus to complete the PHP table. Don't forget to include exercise and activity

Step 3

Color-code your meals with the fruits and vegetables you intend to consume. Remember to use one color for all meals and at least three for lunch and dinner. Also, remember to include all of the macronutrients in all your meals.

Step 4

Opt for full time work, so you have less time to stay idle and become a devil's workshop

Natasha, this is a sample **Power Health Plan** for you. You will get 100 grams complex carbs through the day, 15 grams of protein per meal, about 4 tsps of oil to cook in for the day and 2 tablespoons of flaxseed powder for Omega nutrition.

Ethical wake up: 6.00 – 7.00 AM		
Ethical Meal/ Workout Time	Nutrients/Food and Meal Options (Cals)	Planning Meals/ Exercise/ Activity
Pre-walk snack 6.00–6.30 40 cal	A cup of green tea with lemon. ½ apple ¼ tsp cinnamon powder	-Prepare/plan for your Power Walk
6.30–7.30	Sip 1 litre of chilled water during walk	-Power walk/jog/stretch

Ethical Meal/ Workout Time	Nutrients/Food and Meal Options (Cals)		Planning Meals/ Exercise/ Activity
Breakfast 8.00–8.30 365 cal	Protein	1 cup skimmed milk (90)	-Cook breakfast -Connect with your meal
	Complex Carbs	2 Tbsp raw/1/2 cup cooked oats (100)	- Choose fruit from the list of nutrient dense fruit provided *refer page 72 for this and other carbs
	Healthy Fats	1 Tbsp dry ground flax seed powder, store in deep freezer (135)	
	Fruit	½ apple, ¼ or ½ cup papaya (40)	
	Colour/s	Red, or yellow orange	
8.30–9.30	Drink water by the hour. Stay active		-Plan/organize meals
Mid morning meal 10.30–11.00 275 cal	Protein	3 egg whites with one yolk (105)	-20 mins to eat this -Plan to stay active at work -Review and track your effort - Make weight loss a priority
	Complex Carbs	One Multi-grain millet roti, Bajra/jowar/ nachni (100)	
	Healthy Fats/oils	1 tsp olive oil for cooking (45)	
	Veggies	½ cup sauté mushroom (25)	
	Colour/s	White	
11.00–1.30	Drink water every hour. Stay focused. Stay away from teas coffees and cookies		-Take the lift from the 2nd or 3rd floor at work

Ethical Meal/ Workout Time	Nutrients/Food and Meal Options (Cals)		Planning Meals/ Exercise/ Activity
Lunch: 1.30–2.00 270 cal	Protein	100gms/1/2 cup tofu, (99) skimmed paneer, (70), lean fish, (117), chicken breast (100)	-30 minutes to eat *For protein foods refer page 62-63
	Complex Carbs	One Multi-Grain millet, Bajra/jowar/ nachni, roti or ½ cup brown rice (100)	
	Healthy Fats/Oils	1 tsp olive oil for cooking (45)	
	Veggies	½ cup/100grams red yellow and green peppers with spring onion (25)	
	Colours	4 (red, white, yellow green)	
2.00–5.00	Continue to drink water every hour		Work,stay active, keep busy.
Evening snack 5.00–5.30 321 cal	Protein	200 grams yogurt (126)	The tea seems high in calories but these are nutrient dense. Yogurt will give you healthy bacteria.
	Complex Carbs	½ cup, 100 gms steamed bean sprouts (25)	
	Healthy Fats/oils	1 tbsp dry ground flaxseed powder (135)	

Ethical Meal/ Workout Time	Nutrients/Food and Meal Options (Cals)		Planning Meals/ Exercise/ Activity
	Veggies	Dark green lettuce and purple cabbage (25)	
	Colours	Purple and green	
Evening Walk 5.30–6.30	Listen to your body. Warm up and cool downs are important.		Focus on form. Plan how many steps you will take.
6.30–8.30	Drink water		Get a massage or steam Cook your own dinner
8.30–9.00 Dinner 195 cal	Protein	100 gms lean chicken breast, fish (100-120)	Relax and eat with Dad and Pradeep. Watch some Television. Unwind. Believe that you have done well today.
	Complex Carbs	One tablespoon brown rice or quinoa or roasted amaranth as a garnish (25)	
	Healthy Fats	1 tsp olive oil for cooking.(45)	
	Veggies	Cherry tomato, green beans, yellow zucchini (25)	
	Colours	Red, green and yellow/orange	
Ethical Bedtime: 10.00 to 11.00 PM			

"Read this dossier carefully and study the appendices that give you food choices. If you achieve everything in this sheet at every meal, you give yourself one point for nutrient density. If you miss anything, you don't get that point. This is an all or nothing situation – anything less than 100 percent amounts to total failure."

"What if I do all of this and cheat on a bit of potato or dessert?" asked Natasha.

"Well, you get a zero on your responsibility of nutrient density. Nutrient density is about everything being done in the right way, all at once," replied Susan.

"Hmm, I truly have a lot to do," responded Natasha.

Natasha read her sheet again and began to make some serious mental notes.

"Why is there a two-hour gap between breakfast and the pre walk/pre exercise meal and a three-hour gap between the remaining meals, Susan?" inquired.

"That is because breakfast will serve as your pre-exercise meal and the mid-morning meal is your post-workout meal," answered Susan.

"What if I feel hungry earlier than the times mentioned?" asked Natasha.

"If you eat your portions the way they have been given to you, chances are that you will not, but if you do, drink a glass of water and divert your mind," said Susan.

"Okay, as far as nutrient density goes, this is what I have understood. Please correct me if I'm wrong, Susan. To get a score of 1 point on nutrient density, I must ensure maximum nutrition per bite. According to this list, I should eat no junk food or starchy foods. Instead, I should ensure that all my meals comprise proteins, carbohydrates, healthy fats also known as omega nutrition, plus

fruits and vegetables of all colors – three to four colors for lunch and dinner and at least one or two other colors for the remaining meals," said Natasha.

"You've got it!" exclaimed Susan. "Then we come to metabolic intensity. To get a score of 1 on metabolic intensity, you must wake up ethically and eat at ethical meal times. Then, at all meals, you must maintain nutrient density, as you just told me, and also exercise every day, Natasha," she explained.

"Why is nutrient density being repeated within **metabolic intensity,** Susan?" asked Natasha.

"That's because the body's metabolic efficiency is totally dependent on nutrient density. The effectiveness of exercise depends on the energy that nutrient density can provide in a timely manner," replied Susan.

"In other words, to make the score of 1 for metabolic intensity, I must clear the nutrient density score," said Natasha.

"That's right," replied Susan.

"Okay," said Natasha thoughtfully. "Now for the EEM."

"What's that?" inquired Susan.

"The Ethical Exercise Method (EEM), of course," smirked Natasha.

"Natasha, you really are getting the hang of being healthy and the real you, aren't you?" said Susan.

"See, I am a good learner, aren't I?" responded Natasha.

"Sure you are. Okay, the EEM is both structured and unstructured. It's structured when you dedicate a fixed amount of your time, say an hour, to exercise in a planned manner, such as walking towards a predetermined goal of a certain number of steps and duration, any other cardio routine such as swimming or performing a fixed number of sets of perhaps a lower body workout. Natasha, for the first two months, we will focus on

the cardio aspect. Later, you can include strength training with a muscle-building expert."

"Susan, I am happy just walking and swimming. Body-building, and weight training are not for me; I feel, don't need bulky muscles."

"Natasha, let's not make these 'never-ever' statements. I learnt early that with nutrition being such a new science, I really don't know what I don't know. Therefore, I say that I am always in a state of readiness to know more, without taking sides about any discipline."

"You sound like a nutritional thought leader."

"I know, sweetie, I seem to have become one by default."

Susan continued, "Getting back, the structured component of your exercise this week comprises at least 30 minutes of cardio twice a day. As you build stamina you could increase your exercise time to one hour at a stretch. Choose between walking and swimming to begin with," explained Susan.

"I'll go with brisk walking. I am not happy about the way I look in a costume right now," said Natasha.

"Alright, my suggestion is to start the week with a minimum of five laps at each session. Make one of these walks brisker."

"How much is one lap?"

"One lap is a complete circuit or course for walking or running. For practical purposes we will look at our lap in terms of ½ a KM or 500 meters. Our effort more than exactitude is important. You could either increase the distance and do more laps or increase the number of steps by about 100 for each lap, and walk the same number of laps. So, by the end of 10 days, you must walk at least 10 laps twice a day comfortably and cover a distance of 7 km totally," replied Susan.

"Got it, Susan. Thats easy to remember, 10 laps in 10 days. What about the unstructured EEM?"

"The unstructured EEM is to take at least another 10000 steps, apart from your structured activity," said Susan. You could use a mobile app or a fitness wearable to track how many steps you take and your progress.

Don't get caught up in the count. Just go and do what you have to. You must achieve 10,000 steps a day in addition to your walking and your perfect Nutrient Density and Metabolic Intensity scores by the 10th day of your program and keep going up from there," said Susan.

"Okay, so I will use a mob app or a fitness wearable like FitMs to help me own my activity and prevent other sources from stealing the calories that I need to burn. So, to get a perfect score, I have to do everything exactly as documented here," said Natasha.

"Yes, that's when you will get a score of 11 for your fitness," said Susan.

"Where did you come across this ingenious system? Natasha asked.

"It's what I devised for myself. Two years ago, Aakash looked like this". Susan showed Natasha a really fat picture of Aakash. Natasha, five years ago I had an irritable, sluggish obese husband with intense body odour with more than 50 kilos to lose.

"My God, this is unbelievable! Aakash was this fat? Look at his podgy arms and bulk."

"Yes, like you he was 50 kg heavier. Both of us struggled for five years with weight loss and gain, and each time, delaying tactics and excuses did us in. Our marriage was on the rocks because he lost self-esteem and interest in the family garment business, which in turn suffered huge financial losses. I also started looking for deeper reasons to retain the sanity in our marriage. Reading about the human body and how it functions changed me completely." I discovered that the best place to learn from was the human body, which has just one focus."

"HEALTH!" They both said together.

"I get how you know so much and thanks once again for helping me," said Natasha thoughtfully.

Natasha nodded, looking down at the nutrition dossier in her hand. "So, to become like you, my first step is to follow this for the next two months."

"The challenges of course will increase through the months as you will find out.

Natasha moved aside to read the nutrition dossier.

Susan relaxed into the easy chair and heaved a sigh. She was happy with the way things had moved this far, but the proof of a health effort lay in the weight loss and health gain at the end of the story. As Natasha delved deeper into the dossier, Susan reminisced about the positive outcome of the meeting she had had with Natasha's father and Pradeep.

Susan had spoken at length with them to join in the meals with Natasha, especially dinner. Dinner, because it was the official let-your-hair-down meal, was ostensibly the toughest meal to adhere to for any nutrient density or diet follower. "Eat the same food that Natasha will eat on this diet, at least three times per week if not more," she had requested. That would help Natasha feel more connected to her nutrition and her cause because of family support. "It's a lonely road getting rid of so much fat and weight," Susan had told Pradeep.

"I cannot impress upon you how important it is for the family to be with Natasha day in and day out for her to succeed," she had said.

"I am game, Susan, as long as I can enjoy some foods I like on weekends,"' Pradeep had replied with a sly grin on his face. Natasha's dad had been more than happy to join in. He needed to take care of cholesterol issues and there couldn't have been a more appropriate time for a diet overhaul. "I will stick to the plan and

be with Natasha even during weekends," he had declared. "Happy to help, but please, no brown rice for me," he had concluded.

Susan smiled. The Sharma family could never change in some ways, and yet, they were more than willing to try this time.

Natasha finished reading the dossier.. She looked up, her face mirroring a range of emotions from excitement to perplexity. She said, "Susan, all this is so quirky, but I am so excited because it is that way. I want to make the 1+1=11 score every week!"

"That's great, Natasha!" Cheers to that thought!

"By the way," Natasha asked, "What are these Cha Bar white tea Wednesday meetings we will have?"

"Oh sorry, I didn't mention that earlier," said Susan. "Every Wednesday, we will review your achievements and areas of improvement at the Cha Bar, over white tea. White tea is even more antioxidant rich than green tea. We will discuss, learn, argue about health and brainstorm about macronutrients, food color and exercise in depth. The meetings will last only an hour, so we will need to be prepared in advance," explained Susan. "These meetings will help you understand why you are doing what you are doing and answer any questions you may have. Besides, every Monday morning, you will have a weigh-in and measurements."

"You sure have planned everything for me," Natasha smiled appreciatively. "I won't let you or myself down, Susan. I will stick to this plan and achieve a perfect score every week."

FIVE

Cha Bar Conversations: Protein

The first four weeks of Natasha's transformation program flew like the wind. They were unlike any of her previous weight-loss efforts. Natasha was sure that Susan's health intervention would be convincing and stimulating. Although a lot of the changes that Susan had advised her were similar to what other nutritionists and health professionals had advised, Susan's approach was completely different.

With Susan, the emphasis was not on diets or measuring the quantity of food, developing specific eating habits or avoiding combinations of carbohydrates and proteins. The approach was holistic and integrated, taking into account Natasha's emotions, sleep patterns and her entire personality.

Natasha also knew that Susan understood that Natasha's present was not in the now of things; her past was still alive within her. More importantly, for the first time, Natasha understood that unless fresh thoughts of the present filled up her mind, overcoming obesity was going to be an uphill task.

An important step in the present had been the Natasha's junk-flushing exercise. The exaggerated actions of chucking, throwing and flushing cookies and instant noodles into those

huge bins had snapped the cord that had tied Natasha to junk food.

However, it wasn't until the fourth week that she managed the 1+1 = 11 score. In the first week, she missed the color coding, once because she misread the diet, and another time when the cook forgot to buy the arugula or rocket salad leaves that made the dark green and third color for her dinner. Then, she overslept a couple of times and could not meet the ethical sleep and meal timings. In the third week, she gave in to a small amount of temptation almost accidentally, and had a teaspoon of ice cream. And here was the difference, Natasha realized, in Susan's intervention as compared to the earlier ones.

The intervention appeared to be obsessive and manic, and it made Natasha think of her nutrition and exercise in a new light. It felt like an empowering, cohesive force that was held together by mutual understanding and determination, and took cognizance of the practicalities of everyday life.

Achieving good nutrition was not due to a single element; it encompassed everything from shopping for the right ingredients to cooking and organizing meals. Given the enormity of the effort, Natasha was thankful that her brother, Pradeep, and her father joined her for meals. Thanks to them, she now looked forward to healthy dinners at home.

At the end of the day, the new program was all about being prepared, day in and day out. It was about planning meals and menus, ensuring appropriate ingredients were bought and cooked with appropriate techniques, planning parties and outings around meal timings and not being carried away by the hospitality of others. Resisting hospitality was a fine art, and in fact, a prerequisite for every healthy, hungry person.

The exercise bit as well as the staying active through the day bit was also on track. Natasha was thrilled that her natural athleticism

was coming back. She was able to walk more briskly and for longer distances now. She was very happy with the heel-toe roll through and balance she had achieved.

She even liked the shin pain, because it meant that she was walking in good form and posture, and more importantly, with balance. By the end of the third week, Natasha was already ahead of her game as far as exercise was concerned – she was jogging 3 kilometers in 40 minutes. She knew that her focus on nutrient density and eating at the right time had helped her achieve this.

What was nice about the 1+1 =11 system was that it made every step of the day a challenge. It shifted the focus from how the foods tasted, and better still, stopped her from missing the junk convenience foods she had become addicted to. By the 4th week She had lost almost 7 of the 10 that Susan had targeted from the overall 51 kg, was a size smaller and had begun to feel and see a little bit of a curve on her waist.

She studied her measurement sheets and was proud of her achievements, as she achieved the targets set out for her by the fourth week itself. The journey was cumulative, as was her interest in it.

At night, Natasha listened to the recordings of the Cha Bar conversations that Susan and she had every Wednesday morning.

Today, she was listening to Susan's voice explaining the role of the omnipresent macronutrient, protein, one of the big daddies of nutrition, along with carbohydrates and omega or healthy fats.

"Protein is omnipresent in the body. It provides 4 calories per gram. It is everywhere – in every muscle, cell, organ, enzyme, hormone, even in our nails and hair and skin, and perhaps," Susan paused before continuing, "in every thought."

"Thought?" Natasha asked, puzzled.

Susan nodded. "You see, every thought is a collection of the impulses that are transmitted from one neuron to the next. You may remember from your science textbooks that neurons are part of an elaborate microscopic network of nerves, separated by a miniscule space called a synapse."

Susan explained, "An impulse or response to an internal or external stimulus is transmitted via this network of neurons and their synapses. Each neuron acts as a signaling station to release and receive impulses via the synapse. It does this with the help of neurotransmitters, a chemical substance that is made up of signaling molecules. All of this signaling and transmitting generates our thought patterns, desires and actions."

"Wait a minute, let me understand this one step at a time," Natasha interrupted. "An internal stimulus could be hunger, thirst or pain, or an internal motivation to achieve a desired goal. An external stimulus could be a response to danger, fear, temperature, even appreciating beauty as in a painting or reacting to anything in the environment."

"Yes, when these neurons send and receive impulses collectively, in response to stimuli, an action takes place in our lives."

"But how does protein come into the picture?" Natasha queried.

"Neurotransmitters are brain chemicals. They can, on the one hand, enhance motivation and focus, and on the other hand, they can sedate and even frustrate," Susan explained.

She continued, "These innumerable neurotransmitters in our body are made up of amino acids found in protein-rich foods. Protein, in fact, has an even bigger role in the nervous system. Our nerves have tail-like projections, called axons, which are protected with a myelin sheath. Myelin is also derived from amino acids found in proteins."

"You mean that even our thoughts need the backbone of the protein from our diets and the food we eat."

"Yes, the food on our table, what we eat day in and day out, powers the million billion neurons in our brain, as well as other essential body functions."

"So this is what I hear you say about proteins," Natasha summarized:

> **For the strength of my heart, muscles, thoughts and motivations, as well as for strong, long and silky hair, I need a consistent supply of protein."**

"Yes, quality and consistency are vital for the best effects of protein, or for that matter, any nutrient in the body."

"Why do you keep harping on consistency?"

"Because we need protein in divided doses through the day," Susan explained. "We need about 15 to 20 grams per meal for maximum absorption, depending on activity levels. For your activity levels, we are looking at a minimum of 15 grams of protein per meal. In your nutrition sheets, the quantities of protein I have given per meal are all 15-gram equivalents. Anything more than this would easily convert to fat."

"Why would it convert to fat?"

"Because protein cannot be stored as protein in the body. That is why you cannot have all the protein you need at one meal. That would become an excess and get stored as fat. That's why consistency becomes important – so that you consume only the requisite amount in each meal and avoid excesses. And this requisite amount will change according to your weight and activity levels."

"Susan, do you mean that if I am sedentary, I need less protein as compared to someone who is more active?"

"No, 15 grams per meal is the minimum for adults."

"Okay, what happens if I were to lose weight and double my activity?"

"You will need to consume more protein, Nats, especially if you want to become athletic again."

"Okay, but are there any types of protein, with one type being better than the others?" continued Natasha.

"There are two types of protein, Natasha – first class or animal protein and second class or plant protein. Animal protein is more bioavailable meaning available easily for use in the body than plant protein because it is complete and contains all the nine essential amino acids – methionine, tyrosine, threonine, valine, leucine, isoleucine, phynylalanine, histidine and arginine. Major sources of plant protein lack one or two of these amino acids. For instance, *dal* and legumes do not have significant quantities of methionine; grains such as rice, wheat and millets have methionine, but do not have lysine." Significant levels of methionine, a are important for a multitude of metabolic functions including repair of cartilage, hair and nails, the liver and in the absorption of protein

"How do you remember these methionine type of names so easily?"

"Well, they are an intrinsic part of my body, aren't they?"

"Your protein family members you can always count on, right Susan?"

"Totally! Like I said, it is the second most abundant nutrient in the body."

Susan explained the types of protein further, "That is also why typically a legume and a grain are eaten together. Their proteins complement each other. For instance, *rajma* (kidney beans) or *chana* (chickpeas with rice are good; chickpeas and sesame seeds are equally good together, because they complement each other. The lists explain all of this. The only flip side of such combinations is that they could increase the quantity of carbohydrates in a meal."

"How so?" asked Natasha.

"Both legumes and grains have the same amount of

carbohydrate, about 20 grams per serving. If you were to add vegetables and *roti*, to a meal that contains legumes, which also contain carbohydrates, the carbohydrate count would increase further. If you have ½ cup of rice and ½ cup of *rajma*, you would get 15 grams of plant-based protein and a total of 40 grams of carbohydrate.. Usually, 20 grams of carbohydrate, half that amount per meal, is adequate to maintain weight. If you need to lose weight, you cannot go beyond that figure, because as you know, excesses are stored as fat."

"Susan, why did you use the word 'essential' for the nine amino acids?"

"Whenever the word 'essential' is used in nutrition, Natasha, as in 'essential protein ', it means that the protein must be provided by the diet."

"Oh! So you mean there are proteins that need not be provided by the diet?"

"A better way of explaining this is that some proteins can be synthesized by the body, from the food you eat or body tissues, but the nine essential amino acids must be procured from the diet in an 'as is where is' condition."

Natasha pressed the Pause button on her recorder and made mental notes about what she had heard. She tried to remember the points, the types of proteins, the complementary plant proteins and the essential aspects of nutrients. She clicked the Play button to continue.

"As I mentioned earlier," Susan was saying, "There is also the issue of the bioavailability and biological value of proteins. And before you give me that here-she-goes-again look, let me tell you that bioavailability denotes how much of the protein that you consume from a given food is absorbed by the body. The bioavailability of proteins depends on the biological value of each protein food."

"Let me understand this – the higher the biological value of the food, the higher the bioavailability?"

"Yes, you are absolutely right. Getting smarter at this, Natasha, aren't you?"

"Oh! That is why you insist on the two egg whites and a yolk every day," said Natasha.

"The passing mark for the best bioavailability is for a protein biological value of 70. All plant proteins, with the exception of soymilk as you can see on this list, Natasha fall below 70. Biological values lower than 70 indicate that the body is not able to absorb protein from these foods very efficiently. Eggs have a biological value of 100and whey protein has the best biological value of 104."

Look at those protein foods that complete in the essential amino acid content which is primarily eggs, dairy, poultry and also have a higher BV more often when you need to lose weight. Choosing foods that have a low BV or an incomplete essential amino acid profile, would mean that you need to add another food to complete the amino acid profile. *Rajmah* and brown rice complement each other but the overall starch value goes up. Both *rajmah* and rice have higher starch contents that could interfere with weight loss.

"What are the best sources of whey protein?" asked Natasha.

"To the best of my knowledge, it is mother's milk. The next best would be milk, and then of course, there are whey protein supplements. I really do not know much about supplements, Natasha, so I will not look into that for now. I am given to understand that people who opt for body building and weight training use these supplements. If you wish to look at weight training a little more seriously, then you might need to take supplements."

Natasha turned off the recording and glanced at her diet recall

sheet. So far, so good, she thought. She had made the protein mark for each meal, including the snack. She thought to herself that she wanted to focus on a balance between animal and plant proteins. Natasha wanted to become athletic for sure; that might mean increasing her protein intake in future.

READ THIS PROTEIN FOOD LIST CAREFULLY. THOSE THAT HAVE A HIGHER THAN 70 BV ARE MORE NUTRIENT DENSE.

Protein Foods	One serving	Protein (gms)	Carbs (gms)	Fat (gms)	Biological Value	Calories	Rating 1-10, 10 is best
Egg white	2 egg whites	7	0	0	100	35	10
Whole Egg	50 gms, 1 egg	7	0	6	94	70	9
Soya Milk unsweetened	200 ml,1 glass	6.4	2	3.2	91	80	6
Cow's Milk Skimmed	200 ml/1 glass	15	10	0	90	90	8
Fish, Pomfret, Rawas, Surmai Water-Packed, Tuna	100 gms,3-4 slices	25	0	1.3	83	117	9
Fish, Mackerel, Other oily fish	100 gms, 3-4 slices	20	0	9.4	83	170	8
Chicken Breast	100 gms, one chicken breast	26	0	0.6	79	100	9
Chicken Leg	100 gms, one chicken leg	26	0	11	79	200	7

Protein Foods	One serving	Protein (gms)	Carbs (gms)	Fat (gms)	Biological Value	Calories	Rating 1-10, 10 is best
Paneer skimmed cow milk	100 gms, ½ cup or 1 katori	15	1.2	1.5	77	70	7
Low fat yogurt	100 gms,1/2 cup or 1 katori	5.25	7.4	1.6	68	63	6
Tofu	100 gms, ½ cup, 1 katori	13.8	4.2	5	64	99	5

SIX

Cha Bar Conversations: Food and Energy

In another of their weekly meetings, Susan had emphasized the importance of meal timings, because it was a critical element in correcting the metabolism, keeping blood sugar levels stable and controlling cravings, moods and crying spells. "Regular meal timings bring back positivity to the thought process. The continuous inflow of nutrients to the body on a regular, three-hour basis helps the brain to function at its peak response level," she explained.

"Nutrients are required at regular intervals because they are used up as quickly as you ingest them. Eating reasonable portions every three to four hours keeps our metabolic rate ticking and prevents us from storing fat. As you know, Natasha, all excesses are stored as fat. Eating too frequently or after long gaps of six to seven hours can contribute to food excesses. You can avoid this by eating at regular intervals of three to four hours. In fact, this will also help you lose weight."

"How would eating at regular intervals help me lose weight?" Natasha asked.

"Remember that the best way to lose weight is to extricate energy from excessive fat stores. In order to do that, you need to create a slight energy deficit in your diet. For people who have active lifestyles, this energy deficit is created by maintaining an interval of 3½ – 4 hours between meals."

"An important point, Natasha is that the brain has to receive a continuous and consistent supply of nutrients and energy at all costs. If nutrition is not available from external sources, then the body breaks down its own tissues, muscles and bones for energy for the brain to function."

"That sounds scary," said Natasha. "It must have a weakening effect on the body and affect stamina."

"Not only that," Susan remarked, "when the body's muscles and tissues break down, they slow down the rate at which you burn calories."

"You mean, they steal calories," Natasha piped in.

"They sure do, and when calories are stolen, you can start to store a lot of fat," Susan warned.

"Susan, you also said it is all about food for the brain. But how will I lose weight if I feed my brain? I don't get that connection. Is it not a question of calories in versus calories out?"

"That's true, Natasha, at a very basic level. But the brain is the CEO of the human body and its functions improve with adequate ..."

"Timely nutrition?" Natasha interrupted.

"Uh-huh," Susan added, "And if the brain does not work efficiently for your body, you are in deep trouble."

"You mean if I don't feed my brain the food that it likes, I can become obese?"

"And stay obese Natasha," Susan emphasized.

"This is what I've written in my journal," Natasha said.

"Sticking to meal and sleep timings and daily exercise keeps me energetic, in a well-restored and healthy state, and makes it easier for me to overcome obesity in the long term, Natasha."

The following Wednesday, the conversation was about carbohydrates, the other big daddy of nutrition and energy. Grains such as brown rice, *bajra, nachni*, quinoa and *jowar*; fruits such as banana, papaya, and apple, and vegetables such as spinach, ladyfinger (okra) and cauliflower – all had the energy currency of 4 calories per gram.

"Glucose is the unit of carbohydrates. Carbohydrates break down into glucose after digestion in the human body," explained Susan. "Glucose provides energy for thinking and doing everyday activities, from something as simple as blinking to higher-order activities such as playing football."

"But you said earlier that protein is the component of our thoughts. Why is every nutrient doing the same job over and over again?" asked Natasha.

"Great question! Think of the 'pro' in protein as providing the process through infrastructure and the glucose in carbohydrates as the carburetor driving the brain, or rather, energizing it to act. The brain works best on the energy derived from carbohydrates especially the complex carbohydrates more than any other nutrient. As we go along, Natasha, you will see that even the omega fats from nuts, seeds and fish, as well as a glass of cool water work as co-creators in every way all the time. All of them contribute in some way to everything we do and think of doing."

"Amazing teamwork!" Natasha remarked.

"Yes, and without any questions asked. The only thing that can upset this team spirit is wayward eating and sedentary lifestyles."

Susan looked up and saw Natasha smiling.

"Why the smile?"

"Another way of looking at my health! Keep the nutritional team on my side." With a sudden, puzzled frown, Natasha asked, "Susan, isn't glucose sugar? And sugar is fattening, isn't it?" Natasha asked. "And you said that brown rice, *bajra* and *jowar* are complex carbs, right? If complex carbs have sugar, how are they complex?"

"They are complex because of their rich nutrient profile. Let's understand this a little better. Natasha, imagine a bowl of cooked brown rice and a slice of soft angel cake. Let's compare the two."

"The brown rice has a rougher texture," said Natasha.

"Yes, that's because it has more fiber. Natasha, now imagine the angel cake. Give me three adjectives that come to your mind about its texture."

"Okay," Natasha said, closing her eyes. "Soft, smooth and silky," she replied.

"Soft, smooth and silky foods, in general, have a lot done to them to make them that way. Usually they are made of refined flour that has been stripped of fiber, margarine or other hydrogenated vegetable oils."

"You mean the ones that have trans fats and makes arteries rigid and more susceptible to cholesterol blockages?"

"Yes, and they also contain sugar. Both brown rice and angel cake eventually break down to glucose units in the body and get stored in a very small quantity as glycogen in our muscles and liver, enough for our immediate energy requirements and perhaps a little more. Natasha, the difference is that complex carbohydrates in foods such as whole wheat, brown rice and whole-grain bread contain fiber, nutrients and vitamins, unlike sugar or highly

refined flour that has no fiber at all. All of this fiber – the fiber in the skin, husks and germ of food that makes the structure of the food complex – simply means that the food will take longer to be broken down and get digested."

"Okay, how is that important?"

"The body will have to work harder to break down and digest the food, don't you think?"

"Oh," said Natasha, with a flash of understanding. "In other words, the body will have to use more calories to digest complex carbs. Moreover, complex carbs will provide us with added nutrient density because of the vitamins they contain."

"True..."

"And... wait a minute, the highly refined carbohydrates will prevent us from using these additional calories, so the process of refining food and stripping it of vitamins again steals valuable calories that we could have used to energize our brain to do more for our bodies and lose weight."

"And don't forget," Susan added, "that a slow rate of digestion gives us the bonus of getting sustained amounts of energy through the day. This will in turn keep us exercising more, feeling positive and devoid of fatigue, and most important, this energy will prevent cravings for sweet and junk."

"So, Susan, even these opportunities to burn additional calories will be stolen from us is we keep eating refined food?"

"Yes, eating refined, junk food is a huge loss to the body and upsets the amazing teamwork that can make us feel like a million bucks."

Susan explained that fiber was of two types – soluble and insoluble in water. "For instance, the brown coat on the grains of brown rice is insoluble fiber – it does not dissolve in water. The stickiness of the brown rice or oats when it is cooked is soluble

fiber. The soluble, sticky fiber traps fat and cholesterol and enables it to leave the body, and this is invaluable for health. Insoluble fiber in grains, skins or roughage in vegetables and fruits improves bowel movement and exercises our digestive tract."

"Oh, even that needs exercise," Natasha remarked.

"Yes, everything needs exercise. 'Use it or lose it' is the body's mantra. And don't forget that carbohydrates provide fuel for the brain to function and help other nutrients do their work," elaborated Susan.

"What are examples of carbohydrate food?" asked Natasha.

"One group is grains. Go over your list again, you will see that all of the grains are rated according to the rate at which they break down to glucose in the body. Nutritionists and health professionals call this the Glycemic Index (GI). The lower the GI, the higher the food is in fiber."

"Pulses have both carbohydrates and proteins," added Susan.

"Yes, I looked at that – in the *rajma* and rice examples in our earlier conversation."

"Fruits are a rich source of fibrous carbohydrates and contain a natural sugar, fructose. Non- starchy vegetables are amongst the top sources of carbohydrates. Refer to your list and remember these vegetables."

Natasha had the list in front of her and tried to assimilate the information so that she knew it by heart. She made a mental note to include leafy greens and broccoli more often in her meals, because of their high content of folate, the vitamin required in the formation of oxygen-rich red blood cells.

"Does fructose, the sugar you said is found in fruit, make us gain weight?" she asked.

"Not directly, but when you need to lose weight, fruit does not create the energy deficit required for you to use up your fat

stores for fuelling your everyday work. Just as an aside, too much fruit, more than three a day, can increase blood triglyceride levels in sedentary people."

"That's strange," said Natasha surprised. "I always felt that fruit could do no wrong."

"I know what you mean. Some foods are considered to be unconditionally 'healthy' but several factors – the way you include them in your diet, your body weight and how much you exercise – ultimately determine how good those foods are for us on an individual basis."

Natasha nodded her understanding, but continued with a frown, "Hang on, you said earlier that glucose is needed for energy, but you just mentioned that the body uses its fat stores for energy."

"In the absence of glucose, the body does not want to shut down, so it has plan B – using fat stores for energy when there is a mild energy deficit. However, when there is extreme starvation, such as when people fast, the body slows down to conserve energy. People are known to feel lethargic and sleepy in the fasting state; that is the body's way of conserving energy."

"It's a fine line, isn't it, creating the energy deficit and being in a fasting state? Fasting is not suitable for weight loss."

"In most cases, it is not, Natasha. The plan that has been given to you facilitates this energy deficit without fasting," Susan added.

Natasha nodded and wrote down the following in her journal:

I will eat only complex carbohydrates from now on for sustained energy, healthy brain function, exercising hard, losing weight, thinking positively and for doing all that I want to do.

COMPLEX CARBOHYDRATE LIST, SERVINGS SIZES

This table is an easy way for you to work out your nutrient dense carbohydrate food choices. You know that every food contains carbohydrates, proteins and fats. The predominant macronutrient that a food contains becomes what the food is classified by. In this case it is Carbohydrates. Here is my handy easy to use carb list. This worked for me.

FIRST CHOICE FOR WEIGHT LOSS: MAXIMUM NUTRIENT DENSITY CARBS:

Whole Coarse Grains and Cereals are packed with vitamins like folate, those of the B complex group, iron, magnesium, fibre, slow release low starch, low glycemic index carbohydrates that neutralize insulin spikes when consumed with healthy protein and Omega fats. Food preparations: Rotis, Chapatti, Bread, Cooked/Boiled grain,(rice) Crepes, Dosa, Upma, Pita, Pilaf, Pulao

- ✓ One serving = 30g/2 tbsp uncooked grain, approx ½ cup or one *katori* cooked grain or one 6 inch roti.
- ✓ Each serving: approx 80 calories, has 15 to 20 grams carbs, 3 g protein, 1-2 grams fiber
- ✓ Foods: Large Grain Oats, Finger Millet,(nachni), Bajra/ Jowar(millet), Rajgira, (amaranth), Quinoa, Brown Rice, Red Rice

SECOND CHOICE: MODERATE NUTRIENT DENSITY CARBOHYDRATES not as complex as the above but better than refined, lower satiety, higher glycemic index less efficient at neutralizing insulin spokes, less fibre, more starchy carbohydrates, some like wheat also contain gluten a glue like compound which gives wheat its sticky consistency and is allergenic for many.

- ✓ Whole wheat, Instant Oats, Wheat Flakes, White Basmati Rice, Rawa, Wheat Dalia,(broken wheat), Whole Wheat Pasta
- × Pulses, legumes, beans, dals and lentils like Masoor, Mung and Tuvar, Rajmah,(Kidney Beans, Chana,(Chick Peas), Black /eyed beans (chowli)

Legumes and lentils are healthy but calorie dense, even though very high in fibre, about (8 grams/serving). These are calorie dense starchy carbs, 100 grams, ½ cup or one katori cooked could be approx 120 calories and to make a complete protein they must be combined with a grain like rice, another 80 calories. The entire meal would be 200 calories

(I would avoid these till I lose substantial weight, consume only moderately when I must, like when I am travelling or stranded)

NOT ALLOWED FOR WEIGHT LOSS...EMPTY CALORIE REFINED SWEETENED CARBOHYDRATES CONVENIENCE FOODS

Lowest in nutrient density, has quick absorb sugars, very high glycemic index triggers the fattening insulin spikes; contains refined flour, maida which acts like sugar in the body

- × Flakes/puffed grain: Poha, kurmura, popcorn, corn/rice flakes Rava Upma
- × Very starchy grains and foods: Sabudana *kitchdi*, samosa, mung dal *kitchdi*
- × White refined carbs: White bread, cakes, crepes, waffles, pancakes, naans, rumali roti, noodles, rusks, pizza bread, white pita
- × Confectionery & Cookies: Biscuits, muffins, croissants, donuts, pastry, cakes, brownies, candy, foods made with maida and refined sugar

- ✗ Sweetmeats and Deserts: Barfi, chikki, gulab jamun , aam papad, kheer, shira, phirni, gajar halwa, laddoo, icecream, chocolates, souflees, mousse
- ✗ Deep fried savouries : Samosas,kachories, bhajia, pies, aaloo tikki, puffs, patti and canapes
- ✗ Alcohol has 7 totally empty super fattening calories, whether wine or champagne or whisky. Don't even think about alcohol for the next 2 months

LOW STARCH VEGETABLES: MAXIMUM NUTRITION, MINIMUM CALORIES.

Most nutrient-dense, Loaded with Vitamins A,C, blood pressure regulating potassium, magnesium and fibre, have not fat or cholesterol:

- ✓ Have at each meal including breakfast and snacks
- ✓ One serving: Raw vegetables, one cup/200 g, 2 katories; Cooked = half cup/100 grams, 1katori
- ✓ One serving: 5 gms carbs, 2 gms protein, 2-3 gms fibre and 0gms fat
- ✓ Eg: Leafy greens like spinach, methi, kale, mustard (sarson) all types of lettuce, rocket leaves, dill(suwa) bok choy, spring onion, purple cabbage, (my favourite), green cabbage, broccoli, red, yellow and green peppers, french and runner beans, asparagus, tomatoes, mushrooms, cucumber, carrots, raddish, turnip, snow peas, bean sprouts, pumpkin, Okra, eggplant, bitter gourd (karela.
- ✗ Calorie dense, deep fried and starchy vegetables: Potato, sweet potato, peas, corn, beet root and all other or above vegetables overcooked and deep fried in a lot of oil as patty, cutlets or tikkis.
- ✗ Packaged vegetable soups and meals: NO nutrients too much sodium than the body can handle

FRUIT: SIMILAR IN NUTRIENT PROFILE TO VEGETABLES... PROVIDE A LOT OF POTASSIUM AND CONTAIN the NATURAL SWEETENER, FRUCTOSE.

That's why, unlike vegetables one serving of fruit is 80 to 100 calories and provide 15 grams of carbohydrate, 2 grams fibre, BTW fruit juice has 0gms fibre. Excesses can be fattening.

- ✓ One to 2 max servings a day...one a day is best for weight loss
- ✓ One serving: 150 g papaya, 100g apple Orange, pear, guava, sweet lime, 200 grams strawberries and other berries (have most often highest in fibre and complex carbs)
- ✗ 50 g only of Banana, chikkoo, custard apple because it has too much fructose, only 17 grapes, cherries, leeches, ¼ cup (dont have these for weight loss)

SEVEN

The World of Fats & Oils

A key component of Susan's transformative plan was to empower Natasha through the knowledge of what made up her food and the importance of each nutrient for the body. The Cha Bar conversations on proteins and carbohydrates were steps in that direction. To cover the other important macronutrient, fat, Susan set up a meeting with Dinesh Singh – an authority on edible fats and oils.

Dinesh was engaged in the manufacture of edible oils. He had a thriving business and a reputation for promoting healthy products without playing to the market.

"Hi Natasha, welcome to the world of healthy fats and edible oils and to lots of information about this most misunderstood and misrepresented nutrient," Dinesh said as he welcomed them into his office. Natasha recalled how Susan had told her that understanding and sitting through a talk on fats could be challenging. Dry and boring she had said, but she had to go through with this to speed up her journey through the seemingly dark tunnel of obesity.

Spread out before them was a whole platter of nuts and seeds and all the different kinds of oils available in the market. Under a

label that said 'Rich Sources of Omega 3 Fats', the nuts and seeds platter had almonds, sesame, macadamia, flax seeds, pumpkin seeds. Sesame, sunflower and safflower (*kardi*) seeds, and soyabean was placed under the label Omega 6. Dinesh explained that fish like mackerel, sardines, salmon, rawas, Indian Salmon, tuna and other fatty fish are excellent sources of Omega 3 fat.

In the oil section, the first label on the left read 'Healthy Cooking Oils and Rich Sources of MUFA (Monounsaturated Fatty Acids). The oils displayed under this label were groundnut, olive, canola and rice bran. The next label read 'Rich Sources of PUFA (Polyunsaturated Fatty Acids), and sunflower oil, olive oil and safflower oil were displayed here. Also displayed were saturated fats – ghee and butter; trans fats, that is, Dalda and *vanaspati*; and cold pressed oils, olive, coconut, sesame and flax.

Natasha recalled from her junk flushing exercise and thought to herself that trans fats are refined or artificially manufactured fats, where hydrogen atoms were added to preserve shelf life. She remembered that these fats stole calories from the body. She was beginning to see the pattern in nutrition. Everything that was refined, processed and unnatural did two things – it reduced nutrient density and used up the precious calories that the body would need to keep us feeling healthy and energetic.

"Natasha, are you with us?" She heard Dinesh say.

"Yes, of course."

Natasha realized that with Dinesh, things were going to be more formal and businesslike.

"Good, let's begin then," Dinesh replied in a businesslike tone.

"Dinesh, I would like to make a note here before we begin," said Susan. "In my experience, fats add the maximum taste, flavor and texture to food."

"You can say that again," said Natasha. "You only have to pass by a patisserie, donut store or burger joint to know how delectable

and inviting the flavors of muffins, donuts and burgers are. It is so easy to gobble all of these foods!" Natasha chuckled as she recalled her muffin-eating video from the diet recall.

"Exactly! Fat is amongst the most challenging of nutrients to control for good health, more so because fats, like sugar, are invisible in your food. You can never know how much you are ingesting," said Dinesh.

"In other words, if I can control my fat intake, especially the invisible, hidden portions of fat, then I am on top of my nutrition game," Natasha said.

"Yes. A good way of doing that is to ask yourself when you encounter a food, how much invisible fat it might contain. If the food smells good and is crunchy and flaky, chances are that the invisible fat content is way beyond what you need."

"How sad is that," said Natasha. "Why can't healthy food be tasty too?"

"Well, Natasha," Dinesh said, "The taste of healthy food is new and different. It isn't fair to compare it with what you have been used to eating for so many years now. Trust me when I say that once you get used to the taste of healthy food, you won't miss flaky pastry as much. You may even find that your body will reject flaky food."

"Great, looking forward to that," said Natasha. "You don't have to sell me health any more. I know that I want to be healthy."

Dinesh opened the first slide of his presentation.

"Fats perform several roles in the body. First, they are a powerful, concentrated and backup source of energy and provide the body with 9 calories for every gram. Backup energy is required when when the body is in a fasting state and you have skipped meals. Second, the vitamins A, D, E and K are stored and absorbed in fat; that is why they are known as fat-soluble vitamins. Third, fat cells insulate the body and help it to sustain a core body temperature.

"In addition, some fats, along with protein, form an integral part of cell walls and structure. 60% of our brain cells are made up of Omega fats," he continued.

"If fats perform so many important roles, then it must be an indispensible nutrient like the other big daddies, proteins and carbohydrates," Natasha thought. "Then, obviously a zero-fat situation would be unadvisable."

"In this next slide, we will look at the different types of fat," Dinesh was saying.

"What is the unit of fat?" asked Natasha. "I mean, like the amino acids for proteins and glucose for carbohydrates."

"Triglycerides – 'tri' because they have three fatty acids and one molecule of glycerol."

"Thank you," Natasha said, and Dinesh continued.

"There are two types of fats – saturated and unsaturated. Saturated fats, such as butter, and ghee are dense and solidify at room temperature. In case of a sedentary lifestyle these must be had in limited quantities, about a teaspoon, 5 mg a day. Emerging research is however suggesting to the contrary that unrefined saturated fat like butter or ghee, or coconut oil may not increase blood cholesterol in the abssence of carbohydrates. But for now its best for you to follow a moderate fat plan with complex carbodydrates. It's the refined hydrogenated trans fats more than ghee and egg yolks that affect health. They decrease the oxygen supply to the body's tissues. They also make red blood cells clump together, block arteries, and prevent blood from reaching the brain and heart. This in turn could lead to strokes and heart attacks respectively."

Susan added, "By the way, as we have been discussing, all excesses of nutrition are stored as fat in our body. That fat is also saturated fat. The one destination of refined carbohydrates such as sugar, *maida* or white flour is this sticky, saturated fat."

"Do you mean that the sugar in colas and biscuits gets converted to this sticky saturated fat? So, these fats make me look ugly both inside at the blood and tissue level, and outside too, because it makes me fat. And they also choke my oxygen supply?" exclaimed Natasha, horrified at the thought that refined carbohydrates that converted to saturated fat in the body prevented her from going all the way with her exercise.

"How do fats get saturated? I mean, what are they saturated with?" she asked.

"Natasha, this requires a scientific response," Dinesh said. "I'll try to keep it simple for you."

"Dietary fats are made up of fatty acids or triglycerides. These are a chain of carbon atoms with hydrogen atoms attached. When these chains of varying lengths are loaded with hydrogen atoms the fat is saturated. That's why saturated fats are solid and firm even at room temperature, do not spoil easily, have shorter chains and a higher smoke point."

"Butter and ghee are saturated fats, right?" Natasha wanted to confirm.

"You are right. Animal fats such as butter and ghee are saturated. Margarine is less saturated than butter. Cocoa butter, coconut oil and palm oil are other examples of saturated fats."

"I see from your display that the unsaturated class of oils has two types – MUFA and PUFA. What's the difference between the two?" Natasha asked.

"MUFA or monounsaturated fatty acids have just one missing link, one point in the fatty acid chain where a single hydrogen atom is missing, a single point of unsaturation," Dinesh explained. That's why they are called 'MONO', emphasized Dinesh, "unsaturated fatty acids. "PUFA or polyunsaturated fatty acids have several links of hydrogens missing. These are best for cooking because they are stable and have a high smoke point."

"Okay I get it," Natasha said. "Poly meaning several points of unsaturation. So, what happens when there are many missing links of hydrogens?"

"When there are too many hydrogen atoms missing in the carbon chain like in the PUFA, then the oil is unstable, which means that it spoils or gets oxygenated on exposure to light and heat, and even to extraction processes. This reduces the smoking point of the oil. If longer periods of cooking and heat are used, it becomes sticky and carcinogenic (cancer promoting)."

"Hang on, I am a bit confused," Natasha said. "Saturated fats saturated with hydrogen atoms, are sturdy and solid even at room temperature. For now I could have them in small amounts about a teaspoon a day."

"That's right," Susan said. "The healthiest cooking oils are those with MUFA – olive, canola, groundnut and rice bran – because they have just one missing link one point in the carbon chain where a hydrogen atom is not attached. They are stable and suitable for cooking and also have a higher smoke point."

"What about PUFA then?" Natasha asked. "Don't we need those fats?"

"We most certainly do," Dinesh said. "There are many types and chains of PUFA, but two types – Omega 6 and Omega 3 – are of vital importance, because they are essential fats and are heart friendly."

"Oh, you mean like the nine essential amino acids? The body cannot synthesize them and these must come from the diet."

"That's correct," Dinesh said.

"It is best if PUFA fats come from the diet, from natural food like sunflower and safflower or *kardi* seeds," he explained. "Because of several points of unsaturation, where hydrogen atoms are missing. These seeds spoil easily on exposure to oil extraction

processes which include exposure to heat and oxygen. Therefore, preservatives need to be added to increase the shelf life of such oils."

"Why are these called Omega fats?" Natasha asked.

"Omega is nothing but the place of the of the missing link of the hydrogen atom in the chain of fatty acids. Natures most abundant source of Omega 3 is sea food including makeral, pomfret, tuna, shark and all fatty fish. Shell fish too are good sources of Omega 3 and good to have as part of a healthy diet. Omega 3 fats are also found, to a certain extent in almonds and pumpkin seeds, but the richest vegetarian source of Omega 3 fats are flaxseeds," explained Dinesh, pointing to the brown seed.

"Omega 3 fats spoil very easily on exposure to sunlight, which is why the outer shell of flaxseed is so hard and cannot be chewed or digested by the body. Flaxseeds are best eaten fresh and dry ground."

"I see now, Susan, why you have them in the diet as ground flaxseeds," Natasha said.

"Omega 3 and Omega 6 fats produce energy from the food we eat and transfer this energy throughout the body to govern growth and vitality," Susan explained. "Omega nutrition performs some important functions in the body. It controls blood pressure, prevents muscle fatigue, prevents the stickiness of platelets in the blood, increases stamina and healing and induces mental calm. Two tablespoons a day of ground flaxseeds gives you the entire Omega 3 you need for health and vitality," Susan concluded.

"And Omega 6? How do we include that in our diet?"

"Omega 6 is present in a wide variety of foods, including grains and sunflower and sesame seeds. So, eating a wide variety of foods help us to get enough of the essential Omega 6 fatty acid," Susan said.

"However, eating more refined and deep-fried foods that are cooked in trans fats increases the ratio of Omega 6 to 3, making it 18 :1, whereas the ideal is 1:1, Dinesh" Susan said. "An 18:1 ratio of Omega 6 to 3 hardens cell walls, upsets immune systems and in some cases even brain function."

"All this is quite overwhelming," Natasha said. "Let me see if I've got it right."

- Fats are important and must be present in the diet because they provide an indispensable energy reserve, insulate the body and store the vitamins A, D, E and K.
- The best cooking oils are the MUFA oils – canola, olive, groundnut and rice bran – because these are stable and have a high smoke point. Three to four teaspoons per day is healthy. MUFA fats, unlike their PUFA counterparts, are protective and reduce blood cholesterol levels.
- We must get Omega 3 and Omega 6 fats from the diet because these are essential fats. Flaxseeds are the richest vegetarian source of Omega 3, and two tablespoons of flaxseed powder provides the 3–6 grams per day of Omega 3 that we need. Omega 6 is got by eating a wide variety of foods, including nuts and seeds.

"Well done, Natasha," Susan applauded.

"Great job," said Dinesh. "The whole point of today was to highlight the fact that fats are important and must be there in the diet. Besides, did you know that 60% of our brain is made up of Omega fats?"

"Here is the connection again between thinking, thought processes and nutrition," thought Natasha.

"What about cholesterol?" she asked suddenly. "We always hear about cholesterol in connection with fat intake."

"That is a sterol, another class of fats involved in the production of the sex hormones and vitamin D," Dinesh explained.

"For our purposes, suffice it to say that more than the cholesterol in foods like eggs and animal foods, it is the foods that are refined and high in sugar and saturated fats that increase blood cholesterol in the body," Susan added. "So, it's perfectly fine to eat eggs with yolks. To reduce cholesterol, it's best to reduce your intake of refined, junk food."

"There are also the phospholipids," Dinesh added, "They are another type of sterol that along with protein makes up the cell structure. Eggs, wheat germ, soybeans and liver contain phospholipids."

"What about trans fats?" Natasha asked. "Am I right in assuming that they are refined and are like saturated fats and not 'natural'?" Natasha wanted to hear more about trans fats from Dinesh. With nutrition information, Susan realized that repetition makes for better assimilation of information.

"You are right, Natasha," Dinesh said. "Trans fats are refined and chemically altered fats, where hydrogen atoms are infused to fill up the missing links in monounsaturated and polyunsaturated fats. Hydrogenation makes the oil firmer and more stable. However, trans fats react more like saturated fats in the body, inevitably converting to cholesterol and choking arteries. Examples are *vanaspati*, Dalda and margarine."

Susan and Natasha thanked Dinesh for a truly informative presentation. Once they were home, Natasha sank down on the sofa, saying, "That was a huge revelation. Omega nutrition can prevent clogging arteries. Who would have thought that fats could do that? And that they could lower blood pressure and increase the metabolic rate. Omega nutrition can play a huge role in keeping me thin and help me to lose weight. And you know what the best part is?" said Natasha, "Omega nutrition helps with mental calm. That is just so amazing."

"Isn't it?" Susan said. "Think you've got the basics right. Just stick to them."

"MUFA not PUFA for cooking, not more than 3 teaspoons per day; two tablespoons of flaxseed powder daily for Omega 3 and a wide variety of foods for Omega 6; avoid all refined and deep-fried food that contains trans fats to keep the blood flow smooth and arteries pliant."

"Aye, aye, captain!" Natasha said with a laugh.

Fat comparison chart of edible oils

Cooking oils are not alike – they vary in the types of fats they contain. Choose cooking oils that have no trans fats (or partially hydrogenated fats), lower saturated fat and higher monounsaturated and polyunsaturated fats. Unsaturated fats are better for heart health than saturated fats. Monounsaturated and polyunsaturated fats helps to reduce cholesterol levels, especially the "bad" cholesterol, LDL and increase "good" cholesterol or HDL levels. Saturated fats, especially trans fats the other hand, increase cholesterol levels, especially LDL levels.

DIFFERENT TYPES OF FATS AND OILS AND THEIR COMPOSITION

Fat (1 tbsp)	Saturated (grams)	Monounsaturated (grams)	Polyunsaturated (grams)	Trans fat (grams)
Safflower Oil	0.8	10.2	2.0	0.0
Canola Oil	0.9	8.2	4.1	0.0
Flaxseed Oil	1.3	2.5	10.2	0.0
Sunflower Oil	1.4	2.7	8.9	0.0
Corn Oil	1.7	3.3	8.0	0.0
Olive Oil	1.8	10.0	1.2	0.0
Sesame Oil	1.9	5.4	5.6	0.0

Fat (1 tbsp)	Saturated (grams)	Monounsaturated (grams)	Polyunsaturated (grams)	Trans fat (grams)
Soybean Oil	2.0	3.2	7.8	0.0
Groundnut Oil	2.3	6.2	4.3	0.0
Butter	7.2	3.3	0.5	0.0
Coconut Oil	11.8	0.8	0.2	0.0
Ghee	7.9	3.67	0.47	0.0

Source: http://culinaryarts.about.com

My Simple Way to Use Healthy Fats

- ✓ 5 gms or 1 tsp of all fats and oils is 45 calories weather it is butter or ghee or olive oil or almonds or flaxseeds
- ✓ Use 3 to 4 tsps of MUFA oil like olive or groundnut or rice bran for cooking on weight loss.
- ✓ Have 2 tbsps or dry ground flax seeds for the best in Omega 3 nutrition. It actually helps you to lose fat. Avoid other nuts and seeds for the next 2 months.
- ✓ After substantial weight losses of 20 kgs consider introducing almonds and other nuts and seeds, olives. Keep things simple now
- ✗ Avoid all convenience, of-the-shelf foods with trans fats and hydrogenated fats, like cookies and convenience foods
- ✗ Avoid deep frying foods. Even Healthy foods like purple cabbage turn carcinogenic when deep fried.

EIGHT

Cha Bar Conversations: Water and Colorful Vegetables

In their next Cha Bar meeting, Susan took Natasha through some other essential components of her nutrition.

Water

Susan insisted that Natasha should drink at least 12 glasses of water a day, preferably one glass every waking hour. "Water is the medium for the chemistry of your nutrition. It is a nutrient just like carbohydrates, proteins and fats," Susan emphasized. "It is indispensable to health, because it transports nutrients throughout the body to the various organs and tissues and gets rid of waste and toxic matter. It regulates blood pressure and is present both inside and outside the cells."

"Does water contribute to the efficiency of the other nutrients?" Natasha asked.

"Absolutely! It maintains the structure of the amino acids and glucose or glycogen. Glycogen is the term for glucose that is stored in the body in muscles and the liver."

"Susan, I do know the importance of water. Some years ago, I had food poisoning and was severely dehydrated. I experienced so much fatigue and discomfort, especially with a dry mouth. I never want to go through that again."

"Natasha, you should never be dehydrated. Water is important to our body in so many ways," Susan said. "It helps us concentrate better, simply because it facilitates the right chemistry in the body at the right time in the right way. As we age, Natasha, an even more critical function of water comes to light – that of cushioning and lubricating joints."

"Yes, I remember reading about the synovial fluid surrounding our joints."

"Yes, this fluid around our joints makes their movement smooth and enjoyable, and water is essential to maintain this fluid."

"Susan, water is present in a lot of our foods, right?"

"Yes, vegetables and fruit have as much as 90% water. Even meats and cheeses have about 50%."

"Then, instead of drinking plain water, can the water that I get from my diet – from the fruits and vegetables I eat – count towards my water intake?"

"Let's look at this in another way, Natasha. Look around you at nature. More than 70% of nature is made up water, right? And in a manner of speaking, it is made up of vegetable juice. But that is nature and this is the human body. Natasha, the laws of nature and the laws that apply to the human body do not change. If water is the chemical medium that drives nature's processes, so does it our metabolic processes."

"How can I ever forget this, after you have made such an emphatic point? Water makes up more than 60% of the body and makes its presence felt. Water is just water and nothing can replace it, but Susan, isn't it messy to drink a glass of water every waking hour? I don't, especially when I need to travel or go to work to avoid using the restroom."

"That's really childish. It's like saying that if I don't throw out my garbage, it will not accumulate and stink. But it does, so garbage needs to be thrown when it has to be. Looking at it another way, it is like allowing dust and dirt to settle in the carburetor and forcing it to function like nothing happened. Something has to give. Our kidneys need water to function, to balance body fluids, regulate blood pressure and get rid of wastes and toxins. If you don't drink water at regular intervals, our kidneys stop functioning efficiently."

"All right, Susan, I understand now."

I will try to drink a glass of water every waking hour to keep my body's tissues, muscles and organs well hydrated, to facilitate the timeliness of nutrient interactions, to increase the rate of my metabolic interactions, and to keep my movement smooth and joints lubricated.

Vegetables

The conversation moved on to vegetables and the importance of vitamins, antioxidants and color.

"Veggies bring in the micro-nutrients like vitamins and antioxidants and color in your nutrition," Susan began. "Non-starchy vegetables such as leafy greens like spinach, arugula, methi leaves, red, yellow and green peppers, cauliflower, broccoli, pumpkin, and purple cabbage are loaded with multiple nutrients. They are rich sources of C, A, folate and a host of vitamins from the B complex group. All these quench or destroy free radicals."

"Yes, I know," Natasha said. "I'm already eating about 500 grams of vegetables a day."

"That's great, and it's even better if you increase your intake to 1 kg per day. The benefits of vegetables come from the fact that they photosynthesize their food; that is, they make their

nutrition. They are nature's gift for people who want to lose weight, because a whole cup of leafy greens will just be 25 calories, while half a cup of cereal is about 80–100 calories. People who need to lose weight should eat lots of vegetables because of the nutrition they contain and also because they are loaded with the B complex, water-soluble vitamins. Most of the B vitamins are found in all vegetables. Leafy greens are also known for their folate content and folate is important in new cell formation. Besides, B complex vitamins, B_1, B_2, B_3, B_6 and B_{12} are actively involved in energy metabolism and speed up the metabolism of protein and carbohydrates. They are also the beauty vitamins, and help our skin hair and nails look healthier," Susan said.

"Tell me more about the colors of the veggies? What does each colour stand for in terms of health?"

Color

"Before I move on to color, please remember that fruit has a natural sugar called fructose. It is one of the best things for sweet cravings, but now, when you need to lose weight, you will need to control fruit intake. Because of their sweetness, fruits are also higher in calories than vegetables," said Susan.

"Yes, I remember," Natasha said, "I am following your earlier advice on fruit intake."

"Wonderful! Let's look at the colors of veggies. Red foods such as tomatoes, watermelon and red peppers contain the antioxidant lycopene, which gives you glowing skin and helps to protect against prostate and breast cancer. Orange foods such as carrots, mangoes, oranges, peaches and pumpkin are rich in the phytonutrient compounds and nutrients that come from plants, alpha and beta carotene. These compounds are converted into vitamin A by the body. Vitamin A is indispensable to the health of your eyes, bones and immune system. Yellow-green foods such as

lettuce, spinach, arugula, yellow peppers and corn are a good source of the phytonutrients and antioxidants, lutein and zeaxanthin, which prevent age-related degeneration of the eyes, especially in older people."

"That means I need to focus on these only when I am old?"

"No, you need to focus on them now, so that you don't have a problem in your old age."

"Okay, that's three colors – red, orange and yellow-green. What are the others?"

"Fenugreek or *methi* and cruciferous vegetables such as broccoli and cauliflower help prevent cancer by producing enzymes that detoxify the body. Blue and purple or deep red in berries, eggplant, plum, strawberries and purple cabbage is essential too. These fruits and vegetables contain anthocyanins and pro-anthocyanins, which improve heart function and help the brain to function optimally."

"That means I have to do all of this now and every day of my life. But how does this link to reducing obesity? Isn't that more about creating a calorie deficit?"

"Calories undoubtedly are important, Natasha, but it is the quality of the food, the type of carbohydrates and proteins that are far more important than just calories. If I were to give you a diet of just 900 calories per day, you would lose weight, right? But what would that do to your overall health and energy?"

SOME COLORS IN VEGETABLES/FRUIT FOR A WEALTH OF HEALTH. TICK THOSE YOU CAN HAVE WITH THE CARB LIST ON PAGE 73

Colour	Vegetable/ fruit	Properties
Red/deep red	Tomatoes, beetroot, red bell peppers, pomegranate, cherries, strawberries, raddish, apple, watermelon, red chillies, cherry tomatoes,	Antioxidants: Lycopene, ellagic acid, Quercetin and Hesperidin. Reduces risk of prostate cancer, regulates blood pressure and blood cholesterol, reduces tumor growth, improves joint health.
Green/ dark green	Brocolli, okra, green leafy vegetables, salad leaves, brussel sprouts, green pepper, lettuce, green beans, kiwi, zucchini, asparagus	Antioxidants: Chlorophyll, lutein, zeaxanthin, calcium, folate, vitamin C, calcium, and Beta-carotene. Lower cancer risks, blood pressure and LDL cholesterol levels, normalize digestion, support retinal/eye health and vision, and boost immune system activity.
Purple/ blue	Purple cabbage, blue berries, black currant, black berries, eggplant, plums, grapes, prunes,	Antioxidants: Lutein, zeaxanthin, resveratrol, vitamin C, fiber, flavonoids, ellagic acid, and quercetin. support retinal health, lower LDL cholesterol, boost immune system activity, support healthy digestion, improve calcium and other mineral absorption, fight inflammation, reduce tumor growth, act as an anticarcinogens in the digestive tract, and limit the activity of cancer cells.

Colour	Vegetable/ fruit	Properties
Yellow and orange	Zucchini, yellow bell peppers, carrots, lemon, mangoes, papaya, peach, cape gooseberries, pineapple, pumpkin, sweet potatoes, tangerine	Antioxidants: Beta-carotene, zeaxanthin, flavonoids, lycopene, potassium, and vitamin C. Reduces age-related macular degeneration and the risk of prostate cancer, lower LDL cholesterol and blood pressure, promote collagen formation for better skin and healthy joints, work with the minerals magnesium and calcium to build healthy bones.
White	Banana, cauliflower, dates, garlic, ginger, mushrooms, onions, potatoes, turnips, shallots	Beta-glucans, EGCG, SDG, and lignans that provide powerful immune boosting activity. These nutrients also activate natural killer B and T cells, reduce the risk of colon, breast, and prostate cancers, and balance hormone levels, reducing the risk of hormone-related cancers.

All these were there on the carbohydrate list. "Let me cut out all the technical stuff and get to point," noted Natasha.

Red food helps me to have good skin; orange food improves my eyesight and bones; yellow-green will prevent me from getting cataracts when I am older; the florets will detoxify my body; the deep purple and blue will improve my heart function and strawberries are good for my brain.

"You've got it, Natasha," Susan said.

"Let me go over this again," Natasha said. "I need highly

unrefined carbohydrates and adequate amounts of protein. I need to drink water every hour, exercise 45 minutes twice a day and eat 500–1000 grams of vegetables every day."

Quite suddenly, Natasha withdrew in deep thought.

"What is the matter?" asked Susan, concerned.

"If all of the nutrients are equally engaged in keeping us slim and our mind, sharp, alert, motivated, interested and calm, can Nutrient Density and Metabolic Intensity prevent people from committing suicide?"

Susan was caught unawares and was not sure how to react.

"Yes," she said after a long pause, "I do believe that if your mother had focused on keeping her nutrition powerful, there is a high chance that she would still be around. All of the macronutrients could have helped her deal with her stress. Furthermore, in terms of protein, the happy neurotransmitters could have kept her mood buoyant and looking for solutions; the complex carbohydrates would have given her immediate energy and a desire to achieve, to want to see light at the end of a tunnel and to exercise. The omega nutrition and healthy fats could have kept her quietly confident and emotionally calm and the water would have ensured clockwork metabolism."

"What you are saying is that Nutrient Density and Metabolic Intensity, the 1+1 =11 effect can keep us truly alive in more ways than one. From my experience with you, I firmly believe that nutrition chemistry and our exercise behavior dictates the fabric of our destiny. Mum missed a great opportunity," said Natasha, as she looked once again at Dinesh Singh's presentation and her notes on her progress.

"That is a highly loaded statement, Natasha, but you know what, you are so right!" Susan concurred.

NINE

Dealing with Emergencies

"The next four weeks are going to be even more exciting than the first. Your health program will be taken to an exalted level," Susan remarked.

"Exalted? What do you mean?"

"The first four weeks are like a fitness cocoon. You are sheltered by the program and are ready to change your lifestyle. You put a stop to everything else to get your program going."

"I see what you mean. I have stuck to the workout, work and home routine as per the PHP, table, because I am bound to your timelines. I haven't eaten out at all, have started enjoying family meals and am preoccupied with just one thought – What would it take for me to make my nutrient density and metabolic intensity scores?"

"Exactly! In the next four weeks, Natasha, you will discover ways to deal with three emergencies that crop up in most weight-maintenance programs. You will also look at three important techniques that help you maintain the 1+1 = 11 effect against all odds and give you the ability to stay fit, no matter what challenges life throws at you. If these emergencies are not dealt with

promptly, and the operative word is 'promptly', they have a way of creeping up on you and sapping the zest out of the program."

"First it was the responsibilities of nutrient density and metabolic intensity, and now it is emergencies. Why do you call them 'emergencies' and not 'challenges', Susan?"

"Because emergencies, unlike challenges, need urgent action."

"You mean emergencies convert challenges into do-or-die situations."

"Yes, that's right, Natasha. Emergencies are do-or-die situations. Let's look at the three emergencies you are most likely to encounter."

Emergency 1: Boredom with Healthy Food

"The answer to this is meal expansion," Susan said. "You look at the multiple ways in which healthy food can be cooked, so you don't get bored."

Emergency 2: No access to Healthy Food for Two or More Straight Meals

"This can happen when you are traveling, for instance, flights getting delayed, or a sudden medical emergency, such as when I had to admit Mum to a hospital after her sudden heart attack," Susan said.

"What about destination weddings?"

"Yes, those can also throw any fitness program off track."

"Hey Susan, I have a destination wedding to attend in Week 7 of my plan."

"Where is the wedding?"

"My friend Prahlad is getting married in Goa. Wish me luck, Susan?"

"I am sure you'll see that emergency through with flying colors.

Emergency 3: Very Hospitable People

"You mean to say that hospitable people are an emergency?" asked Natasha.

"Yes, when you are surrounded by them and don't know how to turn their hospitality down. Becoming hospitality proof, learning to say no to unhealthy hospitality and the people who thrust empty-calorie food and drink on you is indispensable to the success of your program. Especially in our country, rich food and hospitality are inseparable. You will test your skills here with the big hospitality lunch at Nina *maasi's*."

"I know, that is some serious hospitality emergency," laughed Natasha. "Susan, you are looking at hospitality as a 101 emergency, it even adds a zero to my 1+1 = 11 plan and nullifies it."

"Very funny! But you will be surprised at how these emergencies can put paid to any health program. You need to have a personal strategy to deal with these emergencies, Natasha. There are no rules or formulas. It's really individual, but the point is that the job needs to be done, and the answers are pretty much within your reach if you are looking for them."

"What about if I fall sick, Susan? Isn't that a real emergency?"

"Natasha, when you are on the 1+1=11 program, chances are you will rarely fall sick, and even if you do, you will not stay sick for too long. For the most part, there is little room for viruses, infection and bacteria in the bodies of those who achieve the 11 score week after week.

Healthy foods are nutrient dense and nutrients like vitamins and antioxidants support the workings of a complex and untiring immune system, one that works round the clock. Bacteria, viruses, cancer causing carcinogens, and other microorganisms

and allergens that invade our metabolic space at all times. Its these little nutrients, the water soluble Vitamin B's, and C's, and fat soluble vitamins, like E, D, A and K, the antioxidants found in dark green and other brightly coloured vegetables, protein that builds our infrastructure and protects our cell walls from damage along with healthy omega fats that fight everything from colds to cancers.

So we need foods that provide us with an ample supply of these fighter nutrients not convenience foods that are deprived of these to begin with and because of that use up the body is supple for their own metabolism leaving nothing in spare for fighting disease and building immunity.

An efficient immune system also helps us recover and normalize much faster

"Okay, so what is the strategy to adopt for these emergencies?" Natasha asked.

"There are three approaches we can use to take your fitness and health out of the fitness cocoon and kitchen closet and ready for emergency handling."

"This seems practical information and different from the Cha Bar conversations," Natasha thought.

"Natasha, learn to weigh risks versus benefits. For instance, if you are forced to eat something unhealthy, like I was when I was stranded without a meal in the hospital where my mother was admitted; or when you are traveling or eating out, you have two options. Either you can miss the unhealthy meal, or you can modify it and eat something from what is available. Decide for yourself which is the better option. Remember that going without food for too long puts the body in fat storing mode. In addition, blood sugar levels drop and brain function is impaired."

"Are you saying then that if I am stranded, it is better to eat junk than not eat at all?"

"You will need to modify the junk food."

"Is that what you did when you were stranded in hospital with your mother?"

"Yes, but I am not going to let that out now. I would like you to think for yourself and figure a way to do that. Better still, look at being prepared for emergencies. Think one meal ahead; prepare one meal to have with you on the go, especially if you know that healthy nutrition may not be available. The question is what that meal would be."

"I guess it would have to be a combination of nutrient density and convenience, Susan," answered Natasha. "Nuts, seeds and fruit, for example, or *roti paneer* wrap or a multi grain sandwich."

"Sounds good! If you always have one meal with you, chances are you will not be stranded anywhere."

"What if I forget to take a meal, or I am unable to for some reason, and I slip up?"

"It's fine. Learn to take failures in your stride. Avoid dwelling over things that haven't gone according to plan. Just move on. Slip-ups will happen, but don't waste a single minute regretting the why and how of a slip-up. A body that has been in a healthy state for the most part..."

"You mean a 1+1 = 11 healthy body?"

"Yes, absolutely. Such a body can handle failures that are few and far between and still keep you in the pink of health."

"That is encouraging," Natasha replied.

"Good, let's move on to outlining some strategies for these three emergencies."

Strategies for Emergency 1: Meal Boredom

"Meal expansion is a technique that helps you to expand ways to cook the same food and overcome meal boredom," Susan said.

Here take a look at this little write up I made for my PR health drive.

Meal Expansion: Maximize a variety of cooking methods to overcome meal boredom

Carbs: Keep them complex and unrefined.

- **Gain from complex grains:** You can do so much to do with them. Oat, finger millet like *nachni*, *bajra jowar* and brown rice can be had as porridge, used as a base for sauces, rolled out to make yummy wraps, crepes and *chillas*. Millet flour, unlike wheat flour does not contain the gluey gluten that helps with binding and therefore millet flour needs warm water while kneading to a dough.
- **Add versatile, vitamin rich vegetables:** Steam, roast, stir fry, even steam fry them or boost vegitables with a quick-cooked onion or tomato gravy. Marinate a bunch of vegetables like cauliflower, broccoli, and the peppers with yogurt and spices for a mouthwatering barbecue or bottle them with a vinegar and pickle marinade in the refrigerator, for quick access when the cook is away.
- Refresh with fruit: Fruit is nature's original desert and sweet craving quencher. Only 1-a-day one apple, pear, ½ cup papaya or 1 cup berries and citrus fruit like orange, ½ cup pink grapefruit when on weight loss. You could carry fruit along with a handful of almonds for a convenient on-the-go snack. Stew, poach, and bake fruit and enjoy with a light yogurt dressing. I love almond bits, pink grapefruit, thinly sliced purple cabbage, with low fat *paneer* and *kala namak* for my purple colour and healthy tasty fix. Juices are out of bounds because they are full of refined carbs and its easy to juice 6 oranges not easy to eat that many.

- Explore with Eggs: Poach, Scramble, boil or bake. Always have eggs with vegetable and salads. Omelet with mushroom or spinach and homemade tomato sauce or chutney are yummy and healthy.
- Fill up on chicken: Boneless chicken breast may be pounded thin on both sides and then lightly seared for 5 minutes on each side. Add a light gravy of choice and serve hot with a heaping of dark green and multicolored vegetables. It's important to lower exposure of meats to heat and cooking to help the proteins to stay intact and not get denatured or altered in any way.
- Power up with skimmed *paneer*: Marinate, barbecue, toss *paneer* with salads, and garnish *upmas* with them. Have oat *upma* with *paneer* garnish and mint chutney. Its my favourite.
- Feast on fish: Undoubtedly fish are the best in Omega nutrition. Grill, bake, lightly sauté, and remember to quick cook fish to maintain its flaky texture. Mackerel, pomfret, king fish, *rawas* (the Indian salmon), and tuna are wonderful sources of Omega Nutrition. Include fish in your diet at least 3 to 4 times per week.
- Go light on legumes and lentils: One serving is just 30 grams or 2 tbsps uncooked legumes like rajmah, chana or chowli or lentils, dal. Eat legumes and lentils in moderation when you want to lose weight. You know the double carb whammy, that legumes must be eaten with a grain. So if you eat ½ cup rajmah with ½ cup rice, both contain 20 grams carbohydrate each and you end up getting 40 grams of carbohydrates. Toss these legumes with salads or puree them to a dip with garlic, chillies and other herbs or chutney now and then with a 1 tbsp cooked rice garnish. Not an entire serving. Use a tablespoon or so of legume paste to thicken gravy instead of the customary white flour.

"Oh okay, so much one can do for health. For a moment I thought meal expansion was about increasing the size of your meals."

"Natasha, let me repeat that meal expansion is about finding new ways to maintain the nutrient density of foods. Like I said earlier, oats can be roasted, steamed, ground, baked, sautéed, cooked with vegetables, grains, paneer, chicken, fish, and even fruit for a healthy desert."

Natasha, counting on her fingertips, said, "Wow, that's 10 ways to cook oats."

"Wonderful! Yes, Natasha, nice thoughts and nice work."

"More often than not," explained Susan, "we associate foods with their typical usage. *Chapattis* and rice, for instance, are for main meals only; eggs are a breakfast food and soup is best for dinner. These associations can be limiting for a nutrient density seeker. You could get fed up of seeing soup every day at dinner or rice every day at lunch, but more importantly, when you travel and don't have control over your food choices, thinking of food in more flexible ways could help you cope with an absence of fine nutrition and the presence of refined nutrition."

"So, what you are saying is that if I were to stay with someone for an overnight visit, perhaps I could have leftover soup and chicken salad from the previous night's dinner for breakfast, if say only pancakes and muffins were available for breakfast."

"Yes, exactly! Expanding your associations with food will make you more adaptable and capable of sustaining your focus."

"If I learn to sustain my health focus, then I can sustain my interest, my weight loss and remodel my destiny."

"Wow, that was very mindful and inspiring, Natasha," Susan smiled.

Natasha smiled back and asked, "Okay Susan, apart from

thinking of food in flexible ways, are there any other meal-expansion strategies?"

"Using different but healthy cooking methods for the same foods," Susan replied, "For example, steaming, steam frying, baking, roasting, marinating or sautéing."

"What is steam frying?"

"Steam frying is best used with vegetables, Natasha, because it helps to retain their nutrient density. Let me explain. What are your favorite vegetables?

"Broccoli, mushroom, French beans and purple cabbage."

"That's a colorful choice, Natasha. Chop and clean these veggies in a 1:10 solution of vinegar and water to get rid of any pesticides or preservatives.. Next, in a wok or kadhai, heat 2–3 tablespoons of water to boiling. Put in all of these veggies; add green chili or garlic, and coriander, parsley or whatever combination of herbs you like. Toss everything together through to boiling, which takes about 3–5 minutes. Add salt, chili powder, ginger-garlic paste or Chipotle, Harissa and other sauces or spices. Turn off the flame; cover the wok with a lid and leave to cook for 5–7 minutes. Open the lid and drizzle the vegetables with a tablespoon of virgin olive oil and enjoy," proclaimed Susan.

"That is mouth watering. Steam frying sounds so much fun."

"It is also a lovely way to retain the natural flavor of food. Frying vegetables with too much *masala* and spice masks these natural flavors and textures, and more important, prevents us from enjoying the nutrition. For all of the next four weeks, you can try three cooking methods each day to overcome boredom with meals. Heres a handy chart I keep on my refrigerator with a Meal Expansion plan for cooking protein foods in 3 different ways."

MEAL EXPANSION CHART USED FOR PROTEIN FOOD CHOICES

	Sun	Mon	Tue	Wed	Thurs	Friday	Sat
Morning	Poached eggs with oat roti and salad	Pan fried eggs multi-grain bread or *roti* and sautee spinach	Baked eggs quinoa chilla and stir fried broccoli	Pan fried tofu *bhurji*, *nachni roti* and mint chutney	Boiled eggs with sauteed mush-rooms and *bajra roti*	Scrambled paneer masala, brown rice *neer dosa*	Micro-waved fluffy eggs with mushroom and peppers
Noon	Steamed chicken curry with brown rice and bell pepper *raita*	Barbecue paneer masala and vegeta-bles with *tandoori bajra roti*	Stir-fried tofu and vegetables with *nachni roti*	Air fried veggies and grilled *rawas* with brown rice (using an air fryer)	Grilled paneer and roasted veggies and oat *upma*	Stir-fried/ steamed fish with sauté, spinach, multigrain *roti*, onion chutney, veggies	Yogurt based chicken curry and *jeera* brown rice, micro-waved *dahi bhindi*
Night	Steamed fish and low starch vegetable stew	Grilled chicken sauté asparagus and greens	Air fried chicken and mushroom soup and roasted peppers	Stewed vegetable hotpot and steamed fish	Baked chicken with purple and green cabbage oatmeal-based white sauce	Grilled and marinated tofu and veggies	Air fried paneer patty and veggies hot pot

"So many different ways to cook. I never imagined how exciting healthy cooking can be. Can we go with two cooking methods for the fifth week for my nutrient density and then three more for Weeks 6–8?" Natasha asked.

"Why would you want to do that?"

"I am just thinking of Maharajji, our cook. It's going to take me a while to teach him all of these cooking methods. Maharajji takes pride in the taste of his cooking more than the health aspect. He is extremely reluctant to change his old ways. Susan, I think you should add reluctance towards healthy cooking to your list of emergencies," concluded Natasha with a twinkle in her eye.

Susan smiled. "It's fine, Natasha, you can work with Maharaji on this gradually. Let's move to Emergency 2 now, shall we?"

Strategies for Emergency 2: No Access to Healthy Food for Two or More Straight Meals

"Let me take you back to the time, Natasha, when my mother had a heart attack. I was in the hospital, looking after her, with no scope to get the kind of nutrition I wanted."

"The hospital must have had a canteen."

"It did, but it offered oil-drenched *samosas*, white-bread vegetable sandwiches, chicken patty laden with trans fats, *mawa* cake with tons of butter and sugar and thick, milky, very sugary coffee."

"What did you do then, Susan? Did you eat the oil-soaked, potato-dense *samosa*?"

"I believe one *samosa* has as much oil as you require for the whole month. I know that when you want to feel your best, such foods can offend your sensibility and intelligence."

"I can see. Prahlad's destination wedding and Nina *maasi's* hospitality are my big challenges in the next four weeks."

Susan knew that in these situations, Natasha would need to test her mental and emotional resilience to stick to her program and maintain her health. The knowledge of nutrition and exercise was there, as was the experience and resounding benefits of the

1 + 1 =11 health method. If Natasha were to pass this final test, Susan would have accomplished most of what she had set out to do for Natasha.

Working with Aakash had been a life changing experience for Susan. Now of course he called himself a fitness freak. Aakash's success established Susan's credibility and passion for helping people overcome obesity.

"Susan, why are you looking so lost?" Natasha interrupted her reverie. "I am dying to know what you ate at the hospital."

"Not telling you yet," Susan smiled mischievously.

"You are such a pest! You enjoy doing this, don't you?"

"I look at it in another way. I think it's best for you to discover your own solutions to your unique situations. That way, you will learn for life, and believe me, it will be a wonderful experience.

"You have changed so much in just four weeks, Natasha. You are always keen and eager, wanting to stretch yourself and do more. Look at your exercise record. You are clocking 12,000 steps a day now, apart from brisk walking and jogging."

"I cannot believe myself. Am I really saying that I want to do more? Remember how I used to pester Mum to learn more and do more?" Natasha said, with a faraway look in her eyes. "By18, I was painting, dancing, playing the drums, modeling and studying hard."

"Don't forget gymnastics and athletics. You were simply poetry in motion."

"Susan, the strange thing is that I feel the joy that I felt in doing all of those millions of things then, by focusing on just two things now – nutrition and exercise."

"This is you we are talking about," Susan said with pride, "An entire being, an entire soul and the proud owner of a body that is gifted with 300 trillion cells and millions of possibilities."

Yes, Susan thought, in a short span of four weeks, Natasha had successfully managed to erase all the "I feel sorry for myself" thoughts that had consumed her over the past decade and a half since her mother had passed on.

Strategies for Emergency 3: Hospitality

"The most intriguing and enjoyable emergencies of all," Susan said, "is falling prey to the hospitality that flows generously, especially on festivals such as Diwali and Christmas. However, it is like waking up the silent killers of health, Natasha," Susan began.

"Isn't that a rather extreme statement? After all, only special occasions warrant that kind of hospitality; it isn't an everyday affair," Natasha protested.

"It may be extreme, but it is true," Susan replied. "The 'one for the road' mentality; appeasing others' feelings by eating more of the food they have cooked specially for you; several *gulab jamuns*, desserts, fried foods like *bhajias*, vodka shots that are thrust down your throat and seem fine because it's only once in a while according to the dictates of hospitality – all of this can make you suffer an empty-calorie overload. Worse still, too much of this excessive hospitality..."

"How much is too much?" interrupted Natasha.

"Two or three times a week can start the process of stealing healthy calories from the body to process these empty calories."

"For me," Natasha said, looking worried, "I know that even once a week would do me in."

"What's worse is that giving in to several such hospitality episodes at one time triggers the hospitality spillover effect."

"What's that?" asked Natasha, amused.

"It is the desire to continue eating empty calories for the upcoming few days or so, after the hospitality event is over."

"I know what you mean, Susan. When I used to diet earlier, I

would look forward to such hospitality events to get off my boring diets. I think one of the reasons was that there was no additional focus to the diet like the 1+1= 11 effect, or meal expansion or these funny emergencies. And If I indulged because I could not say no to someone's hospitality, say on a Thursday, then I would put off going on the diet by one more day and then one more day after the weekend, so that would make it the Monday after this Thursday. If another hospitality event came up that Monday, then I would be done in for a month, after which the diet and weight loss focus went right out of the window."

"That is why I said that it is like waking up a silent monster that kills your health."

"But why on earth are people so hospitable? Can't they just leave dieters alone? Why does hospitality have to be that compelling?"

"Good question, Natasha. You know what, I think it is an insecurity issue."

"Why insecurity?"

"Because that's one way some people can exercise control over the dieter and also validate themselves."

"How is that?"

"For instance, if someone insists that you have a piece of *mithai* because it is Diwali, then they validate the fact that they are doing their duty of implementing the rituals of a festival."

Natasha sighed, "All this sounds quite spaced out, Susan."

Susan agreed, "Yes, sometimes I think in weird ways. So, let's not get into this side of it at all. Let's leave aside the reasons for why others say or do anything. Those reasons are not half as important as the reason why you do something."

"You're right, Susan. My only reason and single-minded focus is the 1+1=11 effect."

"That without doubt is the best way."

TEN

Handling Hospitality

The date and time were set. In the sixth week of Natasha's program, Pradeep and Natasha were meant to have lunch with Nina *maasi*, the epitome of hospitality, to celebrate the graduation of her son Vivek at MIT.

Nina *maasi* was Mira's younger sister. She was the stereotypical *maasi* – gregarious, garish, in your face and painfully hospitable. She was also an awesome cook, who loved to feed people until they couldn't bear to look at food any more. It was a well-known fact that everyone in the neighborhood knew when Nina *maasi* was cooking, for the flavors and aromas of her food would permeate the entire neighborhood, so to speak.

Nina *maasi* was at the door, waiting to welcome Natasha and Pradeep even before they had a chance to park the car. Buxom and big, she shimmered in a sequined tunic, her bright red lipstick and heavy eye makeup adding to the garish effect. Everything about her was large and shimmery – her bulky gold earrings, bangles and bracelets and the flashy diamond-studded watch.

She loved the good life and compelled everyone around her to do the same. Eating and making merry were vital elements in this good life.

"So good to see you, *beta*," she said to Natasha, flashing an aggressive, toothy smile and choking Natasha in a crushing embrace.

Natasha almost gagged, but before she could reply, *Maasi* went on, pinching Natasha's cheeks, "You are looking so pale; dieting too much, aren't you? You must take a break today and enjoy. We have just one life, after all."

"Exactly," thought Natasha to herself. "That's why you need to stay fit."

"I have cooked everything myself."

"You shouldn't have bothered..."

Again *maasi* cut Natasha short and thundered on, "Shh... don't say that, I have cooked all the things you loved eating when you would came here as a child. It's all right to eat and enjoy once in a while. Don't worry, be happy... It's home food, after all, and it's been made with these loving hands," *Maasi* was going on and on.

But even home food can make you fat if it is cooked all wrong, and just because *maasi* cooked the meal doesn't make it healthy," Natasha thought, "and how could *maasi's* cooking take away the ill effects of deep frying?

Visibly shaken, Natasha looked towards Pradeep for help. He was smiling his enjoyment at the hilarious interaction. As he caught Natasha's eye, he signaled Natasha to tell her to hang in there.

Natasha cringed, seeking divine intervention as she wondered for the nth time how she was going to deal with this tsunami of hospitality and still maintain her 1+1 =11 focus.

Susan had warned her that compulsive 'hospitalizors' stalk their 'hospitalizees' by first pointing to a sign of weakness or misery, then showing them a way out and finally making it very clear

that only the 'hospitalizor' could release the 'hospitalizee' of the misery; and all of this would be followed by a false assurance that everything would be fine. Nina *maasi* was doing exactly that. She had remarked that Natasha was weak and had dieted too much; she had declared that the solution was for Natasha to take a break by eating all the delicious food that *maasi* had cooked herself. Finally, she had assured Natasha that everything would be fine in the end.

Nina *maasi* announced in one long, pompous breath, "I have cooked *kheema paratha*, tomato chutney, *malai kofta*, *aloo tuk* (My God, thought Natasha, *aloo tuk* is typically deep fried twice over!), *maa ki dal* with homemade ghee, chicken *biryani*, *puris*, rice *phirni*, *malpua*, *jalebis* and cheesecake, *motichur laddoo* with homemade ghee, homemade ice cream..." The list was so endless that Natasha had stopped listening and tuned out.

She clung to her bag, which had its one meal on the go – chicken sautéed in olive oil, wrapped in a light *nachni* (finger millet) pancake for the proteins and complex carbohydrates, with celery sticks, raw zucchini slices and sliced cherry tomatoes for color and convenience and six to ten almonds for Omega nutrition.

As if reading her thoughts, *maasi* suddenly snatched the bag from her shoulder. "Just relax..."

"But my phone..." Natasha protested.

"Forget your phone for today, darling, and relax. I will keep this bag safely for you."

Oh, there goes my meal on the go! Natasha sighed.

"It's your home," *maasi* shrieked as she entered the kitchen and emerged with very tall glasses of some creamy pink drink. "I am sure you must be thirsty after the three-hour drive to get here. Let's start with *malai* strawberry *lassi*. It has fresh strawberries, so it's healthy."

But not with thick, creamy milk, thought Natasha.

"*Maasi*, I am good with water. May I please have this later?" She prevaricated.

"Don't be silly, you can't do that! When will you eat the rest of the food that I have been cooking since yesterday?"

Pradeep, of course, was having a good laugh and enjoying the anguish that was written all over Natasha's perturbed face.

"*Maasi*, let's just chat," Natasha tried again. "There is so much to catch up on."

"Don't be silly, there is a lot of time for that. First down this *lassi* while I organize the rest of the lunch," she ordered.

Maasi's house was replete with the most delicious flavors of her delectable cooking. At the same time, her cooking methods used many invisible fattening ingredients such as ghee, *vanaspati*, sugar and baking soda. Natasha wasn't about to be impressed. She knew she had a small window of opportunity, now that *maasi* was in the kitchen. She had to think fast and act fast.

Quickly, she managed to top up Pradeep's glass with some more *lassi* and drained the remainder in the bathroom. "One down," she thought. "Now to deal with the meal."

The dishes kept rolling out with their rich aroma and flavors, a feast for the eye and taste buds, but a bunch of empty and hopeless calories for Natasha. She wondered how she could avoid this empty-calorie feast.

Suddenly, she had an idea. "*Maasi*," she said doubling up, "my stomach is hurting a lot. Do you mind if I lie down? May I please have my bag; I need some medicines for my stomach?"

"Oh, what a pity!" *maasi* was sympathetic. "I will make some of my famous *kada* (homemade herbal infusion) for you. You will feel better and then you can enjoy the food. See, I told you that you were dieting too much. I eat to my heart's content every

day and I have never had to experience any of this pain. Your generation is too delicate; you should be able to digest anything, even stones," she went on.

At this point, Natasha pretended to be wincing in pain.

"I will go and make the *kada* quickly," *maasi* hurried away.

"My bag first, *maasi*, my medicines are in there."

"Okay *beta*," said *maasi*, giving Natasha her bag and bustling into the kitchen. *Here goes victory no 2*, thought Natasha.

Pradeep came up to Natasha, looking worried. "Are you okay?" he asked.

Natasha winked at him. "Quick Prads, open my bag and give me the wrap to eat while *maasi* is at the *kada*. Natasha had quickly finished her last bite as *maasi* barged in. The hot *kada* smelt medicinal, but it was the best option, because it did not have any of the invisible, unhealthy ingredients that made up their meal. And that was all that she was going to have of *maasi's* lunch.

The afternoon went by with only Pradeep and *maasi* enjoying their fare. Natasha's pretense had worked successfully. She had managed her first hospitality emergency well.

Susan, Natasha and Pradeep were holding their sides when they returned from Nina *maasi's*. "Ingenious stuff, Natasha!" Pradeep congratulated her. "The meal on the go was supreme, and what an Oscar-worthy performance from you. You managed to reduce the value of *maasi's* gigantic hospitality to a cup of *kada*."

"Do you think she guessed I was fooling her?"

"No, I think she is busy cooking her next meal for yet another unknowing victim," Pradeep grinned.

"But Susan, I cannot always feign illness in hospitality emergencies. I know that it was much better to act sick than eat Nina *maasi's* unhealthy food, but I need a better strategy than this."

"I agree, Natasha. So what have you thought of doing?"

"I have decided that I will call people in advance and tell them that I like to eat in a certain way. I will come to their event celebration only if my food choices are respected. I will also tell them that I would be happy to enjoy their company, share experiences and just chat. That is going to be my new socializing norm."

That is exactly how Natasha managed the destination wedding. She called the family in advance and affirmed to them that she would participate in all celebrations, save the food.

Goa is India's go-to destination for wine, song and merrymaking. Apart from the wine and the *feni* that flowed at Prahlad's wedding, there was tons of food from all parts of the world, as is common at weddings these days. *Sorpotel*, Goa sausages, the cheesiest of pastas, falafel, creamy *mattar paneer*, greasy pan-fried vegetables, fish *rechad*, crumb-fried fish and an array of desserts including pastries, chocolate mud pots, rum balls and local desserts were part of the fare.

However, even decadent Goa, the land of merrymaking, had local health food suppliers. Prahlad's family respected Natasha's feelings and provided her with the phone numbers and details of some of these suppliers.

Natasha had it all sorted – all her meals planned for the three-day wedding celebration, including the *sangeet*, *mehendi* and wedding lunch and reception. She had contacted a local supplier of low-calorie food and had carried a meal-replacement powder for emergencies. She could not manage the colors or the variety of cooking methods to her preferences, but she managed to cut the sugar and fat. She made her own eggs for breakfast, had a basic Indian meal of *rotis*, *subzi* and lightly steamed fish and chicken. Before she went for any of the wedding dinners, she would consume her balanced meal-replacement powder.

Because of her single-minded focus and hard work, Natasha was 10 kg lighter and had lost a total of 22 inches in the seventh week of her program.

She had started to look good and had begun received compliments from all quarters for her glowing skin.

When she returned from Goa, Natasha asked Susan once again about what she ate at the hospital – what she chose from the white-bread sandwich, chicken patty and *samosa*.

"Well," Susan said, "I got two colors for my meal from the vegetables in the sandwich, but I discarded the bread."

"What about the protein?" Natasha asked.

"I discarded the outer coating of the chicken patty and just went for the chicken filling inside. That took care of the protein."

"Wasn't the chicken oily?"

"Yes, but paper napkins are very useful to absorb excess oil."

"Brilliant, Susan! So you got the protein and the color, what about the carbohydrates... did you get it from the *samosa*? You are not kidding me."

"The potato filling inside the samosa, dabbed with paper napkin was my carbohydrate."

Natasha couldn't help but marvel at her friend's ingenuity. "There is always a way out, right?" she said.

"Yes, if one looks for it."

At the end of the eight weeks, a calm feeling permeated Natasha's mind. It was as if the big daddies of nutrition – the carbohydrates, proteins and fats – had calmed her thoughts, and the colors of her nutrition brought in new shades of sunlight and many glimmers of hope.

The light at the end of the tunnel was now brighter and steadier. Natasha's focus was now on ability, doing and athleticism. She was there and ready to stay. She was running @ 1 km in 6.5 mins and covering a distance of 7 km without getting out of breath apart from 20,000 steps a day with her pedometer. She loved the freedom of running and sprinting and looked forward

to the routine of wearing her sunscreen, her Reebok cap and the exercise tights which looked good on her now. She had, in fact, exercised for all those eight weeks to begin an exercise routine for a lifetime.

Every day, when she looked in the mirror, she discovered a new change, an improvement in her body. On the last day of her eight-week program, her legs looked more toned. She had lost 8 inches on her legs. Her waist had regained some of its curves, and her XL-sized T-shirt was looser on her frame than before.

NATASHA'S WEIGHT AND MEASUREMENTS: FIRST 8 WEEKS

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	Total loss
Wt in kgs	117	114	112	110	109	108.5	106	105	12
Body Mass Index (BMI)	40	39	38	37.6	37	37	36	36	4
MEASUREMENTS (in inches, value rounded)									Total loss
WAIST	54	52	50	51	49	48	47	46	8
ARMS	15.5	15.2	14.9	14.9	14.5	14	13.5	13.2	2.3
CHEST	44.5	43	41	41	40	39	38	37.5	7
HIPS	51	50	49	49	49	46	45	44.5	6.5
THIGHS	26.3	26	25.5	25.5	25	24.5	24	23	3.3
NECK	14	13	12.5	12	12	11.5	11.5	11	3
Total loss									30.1
WHR	1.05	1.04	1.02	1.04	1	1.04	1.03	1.03	0.025

There was another significant change. Natasha had become independent about managing her health and discovered that she was ready to let Susan go back home.

Susan had done a great job of staying with Natasha every minute of every day and becoming her mind for the past two

months. Now, however, Natasha's mind had taken over and she was having fun just being herself. Natasha had succeeded in putting her house in order and she couldn't thank Susan enough for the massive transformation.

She also recalled that in the beginning, Susan had said something to the effect of motivating others to improve your own health. She went back to the recording of that conversation where she had affirmed, *"I am going to put my own house in order first before I do anything else. I have to get ready to be so healthy and fit that I can motivate others too. Motivating others is the key to the success of my own program."*

That night, for the first time in eight weeks, Natasha went to bed half an hour later than her ethical sleep time. She was busy with her iPad. Her Google search read "Courses in nutrition education".

ELEVEN

Delving Deep into Nutrition

Within a fortnight of her health transformation, Natasha had enrolled for a distance-learning diploma in nutrition studies from the US. Around that time, Susan also returned to Pune to get back to her life and responsibilities. Her husband, Aakash, had come to fetch her and was ready to sample some of the well-known healthy fare cooked at the Sharma household.

Healthy meals were the new normal for the Sharmas. Maharajji, the cook, thanks to Natasha's counseling, had overcome all his reluctance to cook healthy meals. He would now happily and confidently cook the most delectable of steam-fried veggies, roast some beautifully textured multigrain *chapattis* and grill poultry and seafood to perfection with highly inventive marinades such as mustard, coriander, pickle and chipotle. In fact, he even maintained a decent inventory of marinated broccoli, mushroom, cauliflower and peppers in three colors in pickle or mint chutney masala to help Natasha. The Sharma family maintained the color component of their meals when he was on leave.

He used a mere 2 liters of the MUFA-rich olive oil to cook for the month. Maharajji was clearly maintaining the statutory

requirement of 1/2 a liter of MUFA oil per person per month for the four members – Natasha, Pradeep, Mr Sharma and Susan.

The family now ate most of their meals at home. Maharajji was also watching cookery shows on television to improve his cooking skills. What was more, infected with Natasha's "become healthy" bug, he had also started morning walks; He had even lost some inches off his muffin top.

"Susan, I think you need to learn some healthy cooking from Natasha and Maharajji," smiled Aakash. "Health food has never tasted this good."

Dinner that night comprised a platter of multigrain *rotis* – *nachni*, *bajra*, *jowar* with added cumin and chilli flakes and basil for a rich aroma and tangy flavor; steam-fried and roasted capsicum with spring onions and tomatoes flavored with garlic and chat masala; grilled chicken marinated in pickle masala; *palak raita* in skimmed yogurt tempered with cumin and mustard powder; stuffed baked masala *bhindi*, and herbed brown rice *pulao* with coriander and mushrooms.

"It's funny that I don't have to go for seconds with this type of food. I am feeling full already," Aakash said, using his multigrain roti to wipe the leftover nutrient-dense gravy off the plate.

"I know and that's saying a lot for Aakash. He is a really big eater," added Susan. "Aakash, the fullness is because you are eating complex foods, those that do not steal calories from your body, and digest at a gradual pace so that you have a steady source of energy."

"Natasha, both Susan and I are very proud of you for having achieved so much in such a short time. It is a huge achievement to lose 12 kg on the trot in just eight weeks," Aakash said.

"Susan has been sharing notes with you, I guess," said Natasha, wondering how many people had conspired to get her healthy. "I am very grateful to her and you for being the best

health motivators ever. I now look forward to every day as an opportunity to do so much better."

Dad and Pradeep nodded in agreement. Pradeep, a great mimic, enacted the Nina *maasi* episode for Aakash, playing Nina *maasi's* hospitality and Natasha's sudden "illness" to the hilt.

"I can see that you are a woman of many talents, Natasha," Aakash said with a laugh. Dad also expressed deep gratitude to both Susan and Aakash for changing Natasha's life and emotional profile. The meal ended on a healthy, happy note and Susan prepared to return home after accomplishing what she had set out to do.

As they bid each other goodbye, Susan gave Natasha a tight hug. "All the best darling," she said. "You are going to be fine."

"You bet I am," affirmed Natasha. "We will stay in touch for sure."

Once Susan left, Natasha moved on almost instantly. She couldn't wait to get back to her nutrition studies, and yes, missing Susan was not an option she had considered.

Natasha gets excited about her nutrition studies

Six months after her eight-week intervention, Natasha was 32 kg lighter. She was also ready to submit her first nutrition research assignment. As she flipped through her thick spiral-bound assignment, Natasha went over the index for the nth time and checked the topics that she had answered – carbohydrates; the importance of fluids and water in maintaining health; the benefits of fiber; the role of antioxidants; alcohol as an anti-nutrient; the benefits of vegetarian and non-vegetarian proteins; the pros and cons of fasting and using supplements for weight loss; meal balance. Natasha had researched these topics extensively, understood them thoroughly and written out the answers in her

own words. Of course, her Cha Bar conversations with Susan had sparked her initial interest in the science of nutrition.

However, nutrition science was not an easy subject to decipher alone. The experience so far had been rewarding, the understanding of nutrition a delight, but the research and the immense and time-consuming study required would perhaps have to continue for a lifetime.

Excited about the world of nutrition opening before her, Natasha regularly began to call Susan on Skype. She knew Susan would be interested in the topic, and she was dying to discuss all that she had learnt with her friend.

"These nutrition texts from my American Academy of Health Studies are truly magical and un-put-down-able. The content, presentation and purpose are totally awe-inspiring," Natasha began.

"Purpose?" Susan sounded perplexed. "And Natasha, it is fiction and suspense thrillers, not nutrition texts that are un-put-down-able."

"Don't you see, these books have the identical powerful purpose that we both have, health and to make the world a healthier place. Susan, I am in love with these texts. They contain information that I know can change lives and lifestyles, and make me the strong and athletic person I want to be."

Susan could see now that these texts had become Natasha's best friends. They had introduced Natasha to the dance of the very atoms and molecules that made up the intrinsic chemistry of the nutrients that she had begun to enjoy. More importantly, the information from these books would provide Natasha with the lasting answers she sought, and beam a continuous light on the darkness that had entered her soul when her mother had taken her life.

"Susan, guess what? I am giving up alcohol for good," continued Natasha excitedly.

"Why? Because it's unhealthy?"

"Because alcohol will spoil all the beauty and strength that I will bring to my tissues, my cells, the infrastructure of my body, with my '11 is health' mantra! You see, at 7 calories per gram, alcohol takes precedence for digestion."

"You mean it has to be digested before all other nutrient-dense food that you eat."The tables were turning now; Susan was listening and asking the questions, while Natasha had the answers. Susan was thrilled, because Natasha taking charge of her own health was a coveted and most unexpected victory.

"Yes, and as if that wasn't enough," Natasha was saying, "alcohol is like an ugly parasite, it makes the liver fatty, impairs judgment and is a nutrient robber because it also sponges on important vitamins from the B complex group and folate, as well as the electrolytes, potassium, magnesium and iron.

"It's not a food, Susan, it's an anti-nutrient. Just imagine, without these vitamins in my system, I will feel tired, depressed and anxious all the time. Why on earth would I have all of the nutrient density that I need, and in the same breath, have something like alcohol snatch it away?"

"Whoa! Natasha, relax, I understand how you feel about alcohol, and it's great if you can abstain, but again, focus on what you can eat and do, rather than what you cannot. That way, you will enjoy the process and not sound angry about it," Susan said cautiously, concerned that Natasha was being a bit obsessive.

Learning to balance alcohol intake, or for that matter, the intake of other unhealthy food once in a while and lead a moderate lifestyle was something that Natasha would need to assimilate eventually, once she was over her initial infatuation of becoming supremely fit and only when she had lost all of her excess weight.

"I guess I got carried away," Natasha said ruefully. "What you

are saying does sound more positive. You always know what to say to make me feel more balanced."

In her journal, Natasha wrote:

I will focus on what I can eat and the nourishment that I want to retain to get healthy, rather than getting uptight about what I need to avoid.

Natasha continued to manage her health program and nutrition studies with great efficiency. She would research and study between her ethical meal timings. She avoided burning the midnight oil because late nights and disturbed sleep would not give her body a fighting chance to reverse her health. Only after losing 50 kg would she would consider going out or partying. For now, it was of prime importance for her to maintain an unwavering health rhythm, the dynamic state of equilibrium her texts called the state of homeostasis.

In their next Skype call, she brought the fascinating subject of homeostasis to Susan's notice.

"Homeostasis is the most fantastic fine-tuning mechanism there is in the whole world," she said enthusiastically.

Here she goes again, thought Susan, smiling with pride for Natasha.

"Homeostasis maintains a state of relative consistency for the body. The body is always one up on us, in astonishingly proactive ways."

"Because it senses things before we do?" Susan was getting used to playing listener as Natasha continued to lead conversations these days.

"Yes. You see, our body temperature usually dips at night and rises in the day. So, the body temperature functions within a range, but we don't feel these changes, do we? Our body temperature

stays constant at a 98.6 degrees F for 24 hours. Everything in the body operates on this principle of homeostasis – our hormones and enzymes all operate within a state of dynamic equilibrium," said Natasha, sounding fascinated.

Natasha went on without giving Susan a chance to respond. "Even our nutrients are maintained at fairly constant levels in our blood, because of homeostasis, provided we eat those nutrients from our nutrient density program. If we don't and the nutrient levels in the blood fall too low, we can face severe setbacks in our everyday life. Such deficiencies are not to be made up with supplements alone, because deficiencies affect us on a minute-to-minute basis. They lead to negative thought processes, disturbed concentration and diminished motivation. That is why we need our nutrition now, not tomorrow at a convenient time, Susan. And it's really sad how stress and poor lifestyle choices affect these homeostatic rhythms. And remember all the things you said about the brain. It is the brain that controls these mechanisms as well. A clump of cells that are located at the base of the brain in the hypothalamus coordinate amongst these rhythms. It's called the Suprachiasmatic Nucleus."

"Say that again."

"(Sue-pra-ki-as-MAT-tick) Nucleus."

"Wow, that's a big word."

"Not as big as the things it does. It's the thermostat in the brain that switches on and off bodily functions like our sleep cycle, period cycles, hunger and satiety cycles, the insulin and the cortisol cycles as well as..."

"I know, I know, Nats," sighed Susan. "The human Body is unimaginably powerful."

"MY FAVORITE HOMEOSTATIC RHYTHMS" NATASHA

Homeostatic Rhythms	What They Do...
Circadian Rhythm	Controls the sleep wake cycle. Cortisol the alarm hormones are raised by 2 AM ready to wake you between 6 AM to 8 AM. Cortisol hormones wane by4 pm and make you ready to prepare for bed by 10 PM.
Body Temperature	A seamless mechanism that maintains body temperature at the fairly consistent level of 98.2 degrees F by producing and releasing heat. If this rhythm failed then muscles would fail to fire at less than 82.4 degrees, at 91.4 degrees there is a loss of consciousness, and at 107.6 degrees F the CNS, the Central Nervous System breaks down.
Blood levels of Nutrients like calcium	99% percent of the body's calcium is present in the bones and teeth, and 1% circulates in the blood. When blood levels of calcium are affected, muscles could become weak or when calcium levels are higher, there could be digestive disturbances.
Blood Glucose	Homesostatic mechanisms regulate blood sugar concentrations. The hormone insulin reduces glucose concentration, while hormones like cortisol and glucagon increase glucose concentration in the blood.
Fluid Volume	The kidneys eliminate waste from the blood and help to regulate the concentration of water in the body. The kidneys also work hard to maintain the blood pH.

"I want to do everything I can to maintain my homeostatic rhythms, that way I will stay young and healthy forever."

"Gosh Natasha, look at you, you are brimming with information now; you just cannot stop talking about your knowledge. You spoke about homeostasis, nutrient density and

hormones in the same breath. All your 'poor me' thoughts are out of the window. Your house is not only in order; it is bursting with energy. This infectious health energy can change others too. I can feel your energy through this chat. But calm down, darling. Calm and energetic is stronger than hyper and energetic." Natasha, however, was unstoppable. There were times they spoke for two hours at a stretch, especially on days that Natasha had finished her assignments. "...and insulin," continued Natasha, paying little heed to her advice to calm down, "is the hormone that responds to levels of blood glucose; remember you mentioned that I should control my insulin levels. If the blood glucose levels are within a healthy range and rise gradually as a result of including complex carbohydrates, adequate protein and omega nutrition in the diet, then insulin levels do not rise alarmingly or suddenly. With junk food, insulin levels shoot up alarmingly and suddenly, and then the problems don't stop; they spiral. Did you know that people can get fat just on raised insulin, even if they don't eat too many calories?"

"I know Natasha, but I love your enthusiasm."

"Did you know that even sweet cravings could raise insulin levels? You know, don't you, that excess insulin can increase fat around the abdomen, raise blood pressure and cause Polycystic Ovary Syndrome, the dreaded PCOS? Oh Susan, if only I had kept my insulin levels in check, I would never have got PCOS."

"What do you think women who have PCOS could do, Natasha? What's your understanding of this?"

As she asked that question, Susan realized that she was genuinely interested in hearing Natasha's views. In just six months of nutrition training, Natasha had developed the ability to engage the attention of others. Who knows, Susan thought, Natasha could become a prominent health speaker someday.

Natasha gathered her thoughts and said calmly, "I would tell them that the answer lies within us and comes to us when we follow the 1+1= 11 health mantra of nutrient density and

metabolic intensity. Once you have done that, you will realize that the magic of health lies in the consistent interaction of nutrition and exercise day in and day out. When you promote this interaction, even without your knowledge, your insulin levels, energy levels, sleep cycles and period cycles, all fall into place. You never need to worry about weight gain again. Your natural homeostatic rhythms get powerfully synchronized and keep you youthful, energetic and PCOS-free."

Susan applauded Natasha's little speech. "I guess you don't have PCOS anymore."

"I just changed my health branding from 'PCOS' to 'HEALTHY'," giggled Natasha. "My period cycle has normalized now."

"That's so fantastic, Natasha darling!" Susan said, and then asked about Natasha's future plans.

"Study more about nutrition and exercise, get healthier, learn new cooking methods, and try new exercise forms," Natasha replied promptly. "The only way I can think of never putting on weight again is to continue doing this." And then, Natasha stood up, opened up her hands to the universe and declared, "Health is now my passion and profession."

When Susan had left the Sharma household six months ago, Aakash had predicted that Natasha would take the health world by storm. Looking at Natasha's metamorphosis, Susan couldn't agree more. She looked and sounded so determined, so unshakably focused.

That night, she said to Aakash, "I am sure Mira Aunty is also a happier soul now."

"How do you know?" he asked.

"She must be; she has not appeared in my dreams in a long time," Susan smiled.

TWELVE

The Importance of Strength Training

Natasha was 12 months into her program and had lost 39 of the 51 kilos. However, as with everything, the initial euphoria of doing anything new had faded. The weight loss was slow now and Natasha wanted more, much more. She felt that while her health was on track, her shape left a lot to be desired. She had loose skin, and though the circumference of her waist had decreased, she could still hold fat around her abs.

During the first 8 weeks of her program Natasha had lost 8 inches on her waist, 6.5 inches on her hips for her 12 kg loss, but in the following 10 months the weight loss was 27 kilos and the inch loss at the waist and hip were 7 inches and 3.5 respectively. So the rate of weight loss had halved. In the first 2 months she had managed to lose 6kgs per month in the next 10 months she lost weight at the rate of 3 kgs per month. Inch loss was much slower. The average monthly loss was 4 inches per month in the first 2 months and then this had petered down to less than an inch, 0.7 inch on the waist per month and .0.38 inch on the hips. The rate at which the WHR changed had also slowed.

STATISTICS SHEET FOR 12 MONTHS

	Starting stats	With Susan in 2 months			On her own in 10 months			Total Loss in 12 months
		Weight/ Waist	Total loss	Avg loss in 2 months	Weight / Waist	Total loss	Avg loss in 2 months	
Weight	115 Kgs	105 kgs	12 Kgs	6 Kgs per month	78 Kgs	27 Kgs	3 kgs per month	39 kgs
								Avg of 3.25 Kgs per month
Waist	54"	46"	8"	4" per month	39"	11"	0.78" per month	15"
								Avg of 1.25" per month

Natasha looked like someone who lost weight and had shrunk from size XXL to L in much the same proportion. Though she had reduced her size, a bikini-fit body was what she desired, like the one in her photograph that she would look at every day. She wanted to look strong and capable. It upset her that though her efforts were consistent, the rate of weight loss had slowed down disappointingly.

Natasha knew her nutrition well, but knew no better in terms of exercise. She just chugged along and did things she knew to be right from the tidbits of information she had gleaned from the Internet and her friends. Focusing on Nutrient Density and Metabolic Intensity, she thought, would give her the answers that she needed. Her dream though was to regain the athletic body that she'd had as a gymnast. As fate would have it, that dream too was about to be fulfilled.

Farzad Mistry was a self-styled, good-looking, weight-training expert. He worked out at the Platinum gym, where Natasha was a member. It was the monsoon season and Natasha could not train outdoors for the coming three months, so she was working out indoors in the gym.

Farzad was big, muscular and well built. For him, all roads to fitness led primarily to weight training, rather to heavy lifting and tons of musculature on the body. Natasha, on the other hand, used the gym more for cardiovascular training, running 20 minutes each on the treadmill, elliptical and stationary cycle, clocking 60 minutes in all burning at least 500 to 800 calories per training.

Natasha performed a mean workout and would often wonder how so many women would walk at the measly pace of 4 on the treadmill and gossip about children, boyfriends, husbands and nosy neighbors. She felt that they qualified more for the gossip than the talk test. Natasha had read that if one could talk but not sing during cardiovascular training, one was in the optimal training zone, in terms of heart rate which was the zone between struggle

and challenge. She ensured that she stayed in that zone, walking and running between the speeds of 7 to 11 respectively on the treadmill.

Farzad's friends and those who were close to him knew him as the gentle and kind giant whose bark was clearly louder than his bite. And those who did not know Farzad well were easily intimidated by him, because of his sheer size and strength, brusque manner and determined presence. Apart from Farzad's hunger for fitness and his passion for improving the opportunities for bodybuilding in the city and country, there was no denying that almost everyone was in awe of the depth and breadth of his knowledge on the subject of fitness, especially weight training and bodybuilding. His animated discussions on everything concerning muscle building and training, coupled with some hard-hitting examples, were hard to ignore.

It wasn't uncommon to see Farzad mesmerizing a spontaneous audience, explaining the importance of form and technique of exercise, joint action and the indispensability of progressive overload (increasing weights every few weeks to continuously challenge the body's ability to adapt to new challenges). Weight training he explained is the intelligent thing to do. Each such session invariably ended with this persuasion, "Stop working out like herds of sheep, doing what every other sheep is doing because they have to. Stand out. Be a proud exerciser. Exercise to be an athlete, even if you are a homemaker."

And his now famous retort to homemakers who thought athleticism was not their cup of tea was, "Women are born to be weight trainers. Lifting is their favorite pastime, whether it is shopping bags or babies."When everyone had had a good laugh at this, Farzad would look the women in the eye and say,"You know what, you are all stronger than men like me. You can bear more pain than men; multitask better than men; so why not exercise better than men too? All of you need muscle, just as men do, for

all your work, whether it is in the house looking after babies, working in the office, looking after difficult husbands or shopping till you drop. When you strengthen muscles, your bones become rock solid and young and stay that way."

"Weight train today," he would say. "All women, rest assured that you have the power to push weights, pull weights and carry weights and be athletes in your own special way – not the bulky way, because nature is on your side and would like you to preserve your curves and feminine form."

It was because of Farzad's persuasion that many women in Natasha's gym had started to weight train, in addition to their cardio workouts, and had started to shape their bodies well.

Natasha had often overheard Farzad's impromptu speeches and had wondered why the man wouldn't stop. She felt he loved to hear his own voice and would be better off leaving people alone. She had no intention of meeting him.

Natasha's workout prowess made her one of the most noticed people in the gym; she was clocking a speed of 5 km in 35 minutes @ 1 km in 6 minutes. The fact that she remained aloof and didn't really mingle with the other members was also noticed, and members often thought of her as standoffish and snobbish. She kept to herself, worked out hard in her own way and spent very little time interacting with others in the gym.

One day, Farzad was on the treadmill next to Natasha's, warming up for his leg workout, while Natasha was cooling down after her usual 28-minute run. She had hit the speed of 11 km that day for the first time and needed to catch her breath.

"You run amazingly, especially for a woman," he said appreciatively.

"I run well by any standard," panted Natasha, trying to catch her breath. She disliked sexist comments of this kind. "Thanks anyway," she added brusquely.

"Sorry to offend you," said Farzad with his naughty smile. He introduced himself, and so did Natasha.

"You look like you have lost a lot of weight recently," Farzad continued.

"Yes, about 39 over the last 12 months," said Natasha nonchalantly. "How can you tell?"

"Your T-shirt and tracks are twice your size," he said with a shrug of his shoulders. Maybe she was trying to cover up her loosened skin, he thought.

Natasha was wearing XL-sized black tees and track pants.

"Oh, I didn't think of that. I plan to change my wardrobe once I lose 50 kg."

"Great! So what is the exercise protocol you will follow?"

"I exercise every day. These days, I work out on the treadmill, stationary cycle and the elliptical. Otherwise, I jog outdoors, trek on Sundays... basically cardio-based routines that last about an hour or so, coupled with a rock-solid diet."

"You mean cardio and some freehand training."

"Yes, that's right," said Natasha brusquely, continuing to catch her breath.

"Great, good luck! Let me know if you need any help with your training. I am an excellent trainer."

"You mean, weight trainer," Natasha quipped.

Both got off the machine at the same time and went their respective ways.

A couple of days later, they bumped into each other again near the notice board, after Farzad had finished grunting over some heavy poundage for his back and biceps routine.

"Hey Natasha, I notice weight training is not your cup of tea."

"I just do the basics; I don't want bulky muscles. I would love to look like an athlete, but I feel that if I were to train and increase my weight the way the trainers tell me to, I could end up looking manly. And I as I said earlier, I love aerobic training, love the power of running, especially outdoors."

"You said you had lost 39 kg. How much body fat have you lost?"

"I said 39 kg," said Natasha, unsure where this was going.

"That is just the overall weight. How much fat has gone?"

Natasha looked confused.

"Let me put it in another way. Has the quantum of your muscle increased? You know that muscle is productive tissue, right?"

"Yes, I do, but I haven't focused on it. My BMI is 11.1 points away from the, the healthy range." I started at a BMI of 40.

"BMI is just the weight for height number. It is your weight divided by your height in meters squared."

"I know that! You first convert your height into meters and then divide the weight number by the height number squared."

"Natasha, please understand that the BMI is an inconsequential number. It tells you your weight, but not the quality of weight loss. You know, people can be 'skinny fat'– they could be thin but have a fat abdomen or 'obese weak' – that is, they have less muscle and more fat. People could also be 'obese strong', if they have as much muscle as they have fat. For instance, a bodybuilder like me has a BMI of 30, which falls in the obese category. But my fat percentage is just 13. Most of my weight comes from muscle and bone, which is, lean tissue."

Farzad, stop confusing me, will you? You are beginning to upset me and mock my effort and achievement."

HOW TO CALCULATE BMI

Formula = Weight in Kgs divided by Height in meters squared (Kgs/m2)

1. Measure your height in centimeters, say it is 150 cms
2. Next convert this to a meter value so 150 cm is 1.5 meters
3. Take you weight in Kgs, say this is 50 kgs
4. Divide 50 by 1.5 , which is 33.3
5. Divide 33.3 once again by 1.5 which is 22.2 kgs and a healthy BMI

BMI	Categories
<18.5	Underweight
18.5 – 24.9	Normal
25 – 29.9	Overweight
>30.0	Obese

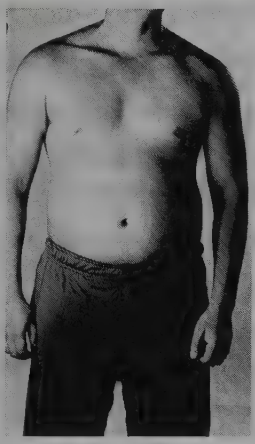
"Come on Natasha, why would I do that? I would be very happy for you to take this weight loss to new levels and achieve invincible health. You look so determined, and I would like you to take that determination forward."

Farzad put his arm around Natasha and said softly, "I think what you need to do is take a DEXA scan. It will reveal your body fat percentage and muscle and water components. That will help you know the quality of your weight loss. The quantity of weight loss, my dear, is inconsequential in my opinion."

Natasha brushed Farzad aside and stomped out of the gym. Angry tears welled up in her eyes as she walked back home, utterly frustrated.

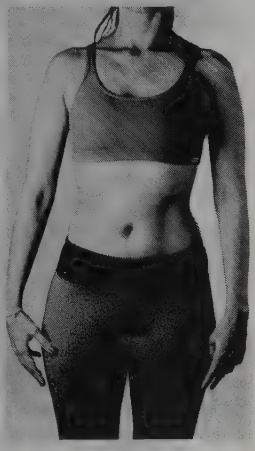
Men

Obese	Fat	Fit
≥40% body fat	≥30% body fat	≤20% body fat



Women

Obese	Fat	Fit
≥40% body fat	≥30% body fat	≤20% body fat



She dialed Susan. "I hate him," she said and was howling now. "This maverick fitness freak in my gym."

"Why? Has he been stalking you?" Susan asked, worried.

"No, he has been stalking my weight loss."

"How could he do that?" Susan asked, bemused.

"He thinks nothing of what I have done and achieved. When I told him that I had lost 39 kg, he just shrugged his shoulders and brushed the whole thing aside. He said the quantity of weight loss is inconsequential."

"Oh really? How pompous of him!"

"Then he said things like people can be obese skinny and skinny strong," Natasha was still sobbing.

MEN

Athletic
≤15% body fat

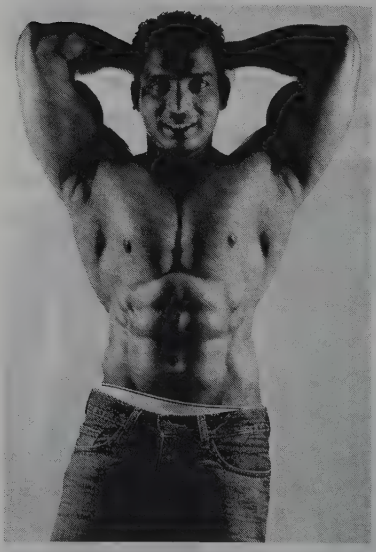


Image credit
Photographer: Suraj Langde
Model: Swapniel Kadam

WOMEN

Athletic
≤15% body fat

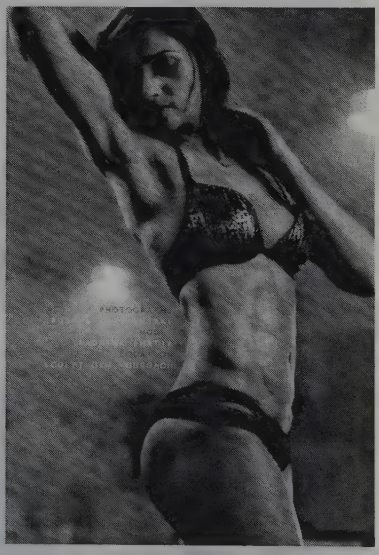


Image credit
Photographer: Pushkaraj Shirke
Model: Radhika Bhatia

"What are you saying? Nothing is making any sense!" exclaimed Susan.

"I mean skinny fat and obese weak or strong."

"Hmm... interesting," said Susan, sounding amused.

"And then he said that we could talk after I took a DEXA scan."

"That's a good thing, isn't it?"

"Susan, but a DEXA scan is for menopausal women to measure their bone health, women who have weak bones. And in case you've forgotten, I am nowhere near menopause."

"Natasha, calm down," said Susan. "Go take the DEXA. Better to take it when you are young and not menopausal so that you can have a healthy menopause, rather than take it when you have menopause and there's very little you can do about it."

Natasha thought for a minute and her mood lifted. "Susan, you are right. I guess as fitness professionals too, it's best to be in the know of things," she continued.

"And better to do it on yourself first. Natasha, you are on your way to becoming a fitness professional now, so it is a good idea to try things out on yourself before prescribing it to your future clients," said Susan.

"But isn't the radiation harmful?"

"Recall that we spoke about risks vs. benefits, Natasha."

"Okay," said Natasha, taking a deep breath. "I understand that the risk of radiation is far less than the benefit of knowing more about my body and knowing if Farzad was right or, better still, wrong about me," she said, Natasha sounding much more cheerful than before.

That night, Natasha took a long, hard look at herself and realized that there was much more to health than just losing weight. Clearly, something was missing in her program.

Her latest body measurements showed that inches were lost all over the body. However, one factor about her weight loss had been nagging her, the fact that her waist to hip ratio, the all-important WHR, was not going down in tandem with the rate of her weight loss.

She analyzed her measurements once again. Her weight was down by 39 kgs, the BMI was down by 14 points, but the WHR had moved from 1.05 to 0.92 been stuck at 0.9 for the last four months or so.

MONTH WISE WEIGHT LOSS ON HER OWN AFTER SUSAN'S INTERVENTION

2012-2013	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total Loss
WT IN KGS	105	102	99	97	94	91	87	84	80	78	27
WAIST in "	46	44	42.5	41	40	39	39	38	37	39	7
RT ARM	13.2	13.0	12.5	12.0	11.6	11.2	11.0	11.0	10.5	10	3.2
CHEST	37.5	37.0	36.2	35.8	35.0	34.7	34.5	34.5	34.5	34.5	3
HIPS	44.5	44.2	44	43.7	43.5	43	42.7	42.5	42.0	42	3.5
THIGHS	23	22.8	22.5	22	21.7	21.5	21.3	21.2	21	21	2
NECK	11	10.9	10.7	10.5	10.3	10.2	10.1	10.0	10	10	1
WHR	1.03	0.99	0.96	0.93	0.91	0.90	0.91	0.89	0.88	0.92	0.11

Natasha looked at herself carefully in the mirror. Agreed, she had lost volumes of weight and inches all over her body, but she still had a long way to go in terms of shape and body definition.

Farzad was right. Her shape was not changing. It was as if she had shrunk two sizes in the same shape. Her abdomen, though smaller, was still protruding and prominent, albeit within a smaller body frame. The shoulder girdle and arm muscles could look stronger and better defined; the triceps were hanging; her back

was still flabby and thick and her thighs and calves weren't as taut and shapely as she had once seen them.

Though she hated to admit it, her body shape left a lot to be desired. That was why she wore those loose tees – to cover the awkward body shape that Farzad had noticed. She so wanted to change her wardrobe and wear skinny jeans and fitted tops. Yes, she wanted muscles. So while the nutrition was moving like clockwork and the jogging, power walking, stretches and 20,000 steps every day and the freehand exercises were totally on the button, Natasha was convinced she needed to do something more. Perhaps Farzad was right, though she hated to admit that.

Natasha took the DEXA scan for Body Fat. Most people take a DEXA for checking the status of bone health. The results showed that Natasha's bones were quite strong for her age, but that she had about 31% body fat and was still obese. She discussed the results with Susan over Skype.

"Susan, 31% body fat makes me obese, right? Obesity for a woman is defined as anyone who has 30% or more body fat, irrespective of weight. This is so disheartening, I have lost 39 kg, have a near normal BMI, but I am still obese."

"Natasha, don't get upset. You know you've done a great job, and knowing your body better is a great opportunity for you to make something bigger of your weight-loss effort," Susan said encouragingly. "So I suggest that you put yourself in the hands of the expert. Talk to Farzad and help him make you an athlete again," she concluded.

Natasha went sheepishly to the gym, only to find that Farzad was not in and had gone out of town for the weekend. In her impatience to start with her new program, Natasha read her exercise physiology text and begun analyzing the factors that needed to be considered while following an exercise prescription.

EXERCISE PRESCRIPTION

Exercise prescription refers to the modes or types of exercise to be done. These include:

- Cardiovascular or aerobic exercise for building stamina, the strength of the heart and lung capacity
- Strength or resistance training to build muscle strength and size, and therefore, an athletic shape, strengthen bone health and increase the overall basal metabolic rate (BMR), the rate at which calories are used up even at rest
- Stretching and flexibility to lengthen muscles and improve the range of motion around a joint

Other elements of fitness are also part of the exercise prescription. These elements include:

- Breathing techniques, relaxation, rest and undisturbed sleep
- The frequency of the training session
- The duration of each training session
- The intensity of the work effort of the training session
- Appropriate nutrition and hydration

Natasha realized that she was already taking care of the last of these elements, that is, appropriate nutrition and hydration, with her Nutrient Density and Metabolic Intensity focus, or the '11 is health' mantra. Her mode of exercise had been primarily aerobic or cardiovascular, involving running, jogging or brisk walking with some stretches thrown in and a few freehand exercises when she felt like it. While the frequency and intensity of each training session were in place, she had done nothing in the last 10 months to increase the size of her muscles and raise her BMR,

which would have helped her to become a furnace for burning fat calories.

It took 10 long days for Natasha to finally meet Farzad. He had gone to Nasik to participate in a bodybuilding contest.

"Farzad, where the hell have you been? You left me to do the DEXA and hooked off somewhere for 10 whole days," said Natasha, looking agitated.

"It's my job," Farzad said, unfazed. "You know that I am a professional bodybuilder, and I won first prize! Didn't you read the notice board?"

"Farzad," Natasha said exasperated. "I am only reading my DEXA these days. It says I have 31% body fat, which makes me obese, irrespective of my current weight."

"You've come to the right person then," Farzad said with a smile. "When do we start training?"

"You mean, weight training," Natasha queried.

"Yep, what else?"

"But I don't want muscles, especially like yours."

"What makes you think that I want them for you? And even if I did, you can't get them. I have 10% to 30% more of the male hormone testosterone as compared to you. And testosterone is the raw material for bulky muscles. Even if you tried to get bulky, you wouldn't, because women don't have as much testosterone."

"I know. I read about that," said Natasha sourly. "Get to the point, Farzad. And if you are going to train me, I would like to keep it strictly professional."

"Okey dokey, your wish is my command."

Thus, Natasha started weight training three days a week with Farzad.

She quickly realized that Farzad was a hard taskmaster for form,

technique and body alignment. She liked that about him, for she loved striving for perfection. He always complimented her on her biomechanics, which as he explained, was how her body was positioned in terms of the workout equipment. "Avoid using cheat muscles and please don't strain your neck," he would remind her.

The back workout was especially challenging for her. Bent over rowing was a very tough exercise to do in good form. It took her almost three weeks to get that correctly.

NATASHA'S WEIGHT TRAINING AND CARDIO SCHEDULE FOR 12 WEEKS

Natasha checks out one of Farzad's many 12-week exercise schedules... a mix of cardio and weight training (8-10 exercises/ training)

Week/ focus	Mon	Tues	Wed	Thurs	Friday	Sat
Week 1 Learning the form Building stamina 2 sets/ exercise	Wt training Full body 15 to 20 reps/set	30 to 45 mins Cardio 5 km Abs and stretching	Wt training Full body 15 to 20 reps/set	30 to 45 mins Cardio 5 km Full body stretching	Wt training Full body 15 to 18 reps/set	30 to 45 mins Cardio 5 to 8 km Abs and Yoga
Week 2 Practicing the form 2 sets	Wt training Full body 15 to 20 reps/set	45 to 60 mins Cardio 5 to 8 km Abs and stretching	Wt training Full body 15 to 20 reps/set	45 to 60 mins Cardio 5 to 8 km Full body stretching	Wt training Full body 15 to 20 reps/ stretching	45 to 60 mins Cardio 5 to 8 km Abs and yoga/ stretching
Week 3 Practicing the form 2 sets/ exercise	Wt training Full body 15 to 20 reps/set	45 to 60 mins Cardio 5 to 8 km Abs and stretching	Wt training Full body 15 to 20 reps/set	45 to 60 mins Cardio 5 to 8 km Full body stretching	Wt training Full body 15 to 20 reps/set	45 to 60 mins Cardio 5 to 8 km Abs and yoga/ stretching

Week/ focus	Mon	Tues	Wed	Thurs	Friday	Sat
Week 4 The 2 day split routine And change in cardio. learning form; more exercises 2 sets/ exercise	Wt training Upper body 15 to 20 reps/set	45 - 60 min cardio Run @ 7 mins for 1 Km for minimum of 20 mins out of the total cardio time on treadmill	Wt training Lower body 15 to 20 reps	45 - 60 min cardio Run @ 7 mins for 1 Km for minimum of 20 mins out of the total cardio time on treadmill	Wt training Upper Body 15 to 20 reps/set	45 - 60 min cardio @ 10 calories per minute for 8 km on elliptical, cycle and treadmill
Week 5 The 2 day split Routine improve stamina 2 to 3 sets/ exercise Increase weights	Wt training Lower body 15 to 20 reps/set	45 - 60 min cardio Run @ of 7 mins for one Km for 30 mins this week of total cardio time on treadmill	Wt training Upper Body 15 to 20 reps/set	45 - 60 min cardio Run @ of 7 mins for one Km for 30 mins this week on the treadmill	Wt training Lower body 15 to 20 reps/set	45 - 60 min cardio @ 12 calories per minute for 8 km on 3 stations like last week
Week 6 The 3 day split learning 2 sets/ exercise	Wt training Legs 12 to 15 reps/set	45 - 60 min Cardio 10 mins, 5 stations	Wt training Chest, shoulder, triceps, 12 to 15 reps/ set	45 - 60 min cardio @ 12 calories per minute for 8 km on your choice of stations	Wt Training Back and biceps, 12 to 15 reps/ set	45 - 60 min cardio @ 12 calories per minute for 8 km on your choice of stations
Week 7 The 3 Day split improving reps and form 2 to 3 sets/ exercise	Wt training Legs 12 to 15 reps/set	45 - 60 min Cardio 10 mins, 5 stations	Wt training Chest, shoulder, triceps, 12 to15 reps/ set	45 - 60 min cardio @ 10 calories per minute for 10 km on your choice of stations	Wt Training Back and biceps, 12 to 15 reps/ set	45 - 60 min cardio @ 12 calories per minute for 8 km, on your choice of stations
Week 8 The 3 day split continues 3 to 4 sets/ exercise	Wt training Chest Shoulder Tricep 12 to 15 reps/set	45 - 60 min Cardio 8 - 10 km 2 - 3 stations	Wt training Back biceps 12 to 15 reps/per set	45 to 60 mins Cardio 8 - 10 km on 2 - 3 stations	Wt training legs 12 to 15 reps/set	45 to 60 mins Cardio 8 to 10 km 2 - 3 stations

Week/ focus	Mon	Tues	Wed	Thurs	Friday	Sat
Week 9 Advanced variations Super sets 2 to 3 set/ exercise	Wt training Chest biceps 10 to 15 reps/set	45 - 60 min cardio @ 8 calories per minute totaling 360 to 480 cals	Wt training Back triceps 10 to 15 reps/set	45 - 60 min cardio @ 8 calories per totaling 360 to 480 cals	Wt get training up Legs and shoulder 10 to 15 reps/set	45 - 60 min cardio @ 8 calories per minute totaling 360 to 480 cals
Week 10 Superset 3 to 4 sets/ exercise hyper-trophy	Wt training Chest biceps 10 to 15 reps/set	45 - 60 min cardio @ 8 calories per minute totaling 600 to 700 cals	Wt training Back triceps 10 to 15 reps/set	45 - 60 min cardio @ 8 calories per minute totaling 600 to 700 cals	Wt training Legs and shoulder 10 to 15 reps/set	45 - 60 min cardio choose a calorie or distance covered focus 600 to 700 cals
Week 11 Trisets with full body training for added calorie burning 2-3 sets/ exercise	Wt training Chest legs and back 10 to 15 reps/set	45 -60 mins Cardio 10 mins, 5 stations	Wt training Biceps triceps and shoulder 10 to 15 reps/set	45 - 60 min cardio @ 10-12 calories per minute for 8 km	Wt Training Full body training 10 to 15 reps/set	45 - 60 min cardio choose a calorie or distance covered focus 600 to 700 cals
Week 12 Trisets with full body training for added calorie burning (3-4 sets)/ exercise	Wt training Chest, legs and back 10 to 15 reps/ exercise	45 -60 mins Cardio 12 mins, 5 stations	Wt training Biceps triceps and shoulder 10 to 15 reps/set	45 - 60 min cardio @ 10-12 calories per minute for 8 km	Wt Training Full body training 10 to 15 reps/set	45 - 60 min cardio @ 12 to 13 calories per minute for 8 km

THIRTEEN

Delving Deep into Exercise

Given Farzad's vast knowledge and passion for exercise, and Natasha's enthusiasm to learn more about all things related to fitness, it was not uncommon to find both of them in serious discussions regarding various aspects of exercise.

"Cardiovascular exercise is for cardiovascular fitness," Farzad was telling her today.

"You mean it does not increase muscle size or strength."

"Not really. The focus here is to improve the efficient functioning of the heart. You know that your heart pumps blood through the body to deliver nutrients and oxygen to perform, to breathe and to live."

"Yes I do. This blood follows a route of '8', going via the lungs, providing oxygen to tissues and muscles, and then, deoxygenated blood returns for more oxygen. But tell me, what happens to the heart when you start to exercise?"

"The heart rate increases and the heart pumps faster to provide more oxygenated blood to the muscles quickly in response to your desire to run or walk briskly. Remember that cardiovascular exercises such as walking or running are aerobic

training and involve hundreds and thousands of repetitions unlike weight training, which has just a few repetitions per set, say about 20."

"I see what you mean. My pedometer shows that I take about 8,000 to 9,000 steps every time I run 10 kilometers. That is like 9,000 single-leg repetitions."

"Also, cardiovascular exercise tests both your cardiovascular endurance and your muscular endurance."

"You mean that cardiovascular exercise tests how much work my muscles can do and for how long they can work? That still does not answer why I need weight training, Farzad," said Natasha, sounding amused.

Farzad launched into an explanation of the different types of muscles, so that he could show Natasha how weight training was different from cardiovascular training.

"Muscles are essentially contractile tissue," he began. "Skeletal muscles such as the biceps, triceps of the arms, quadriceps and hamstrings of the legs and glutes of the hips are organs of the muscular system. These attach via tough tendons to the bones of our skeleton and help us to move and do the things we want to do."

"You mean skeletal muscles promote voluntary movement."

Farzad nodded. "Weight lifting is one such movement."

"As are dancing, driving, reading and writing and gymnastics," said Natasha, enjoying this tête-à-tête thoroughly. "I have read that there are other types of muscles, Farzad, such as cardiac and smooth muscles."

"Yes, but these are different from skeletal muscles, because they are involuntary muscles, and work without depending on our purposeful intention for doing work."

"The cardiac muscle is obviously linked to the heart and must be quite strong."

"Yes, it is amongst the strongest and therefore similar in structure to the skeletal muscles."

"And smooth muscle?"

"It is an involuntary muscle found in the walls of our organs, tissues and blood vessels such as the esophagus, stomach, bladder, uterus, trachea and so on."

"The human body is amazingly organized, isn't it?"

"Hundreds of thread-like filaments called myofibrils join together to form muscle fiber. When the thicker muscle fibers, made of the protein myosin slide against the thinner actin filament, in response to a stimulus, the muscle contracts to effect a movement, either voluntary or involuntary. Of course, there is a difference in the type of contractions of all muscle fibers, because there is a difference in their purpose or movement, such as voluntary or involuntary."

"I understand all that," Natasha said. "But what does it have to do with the different forms of exercise?"

"I'm getting there," Farzad said with a smile. "See, resistance training is essentially anaerobic, meaning that it does not use oxygen for energy as aerobic and cardiovascular training do, but it has to use some form of energy."

"So, what does it use for energy?"

"Resistance training uses the stored energy in muscle cells, called ATP.

"Adenosine Triphosphate is ATP, right?" asked Natasha.

"Bang on! It's not such a big word to remember when you think of its indispensable functions. Because there is a very limited supply of ATP, which also gets quickly recycled after it is used up, resistance training is done in spurts and bursts, and requires a rest between sets. Typically, a set comprises of 15 to 20 repetitions to begin with. When you start to exercise with heavier weights, you

will do fewer repetitions. Usually a beginner starts with 2 sets of 20 reps and then move on to 3 sets or more of fewer reps. As you progress, you will need to rest between the sets. The fewer the repetitions, the longer the rest, and the higher the poundage or resistance. The more intense it gets, the more intense the body gets at using ATP and the faster is the rate of fat loss."

"I know that ATP is adenosine triphosphate, the energy currency of the body and this energy pathway does not use oxygen," Natasha replied. "It's a bit complicated, but I get that resistance training requires far fewer repetitions as compared to cardiovascular training. Everything is different, the muscle fibers used as well as the fuel, and that's why the benefits are bound to be different."

"Beginners start with just 15–20 reps, intermediate 12–15, advanced about 6–8 reps and super advanced 4–6 reps," Farzad explained.

"The 4–6 reps is what you do, isn't it, Farzad?"

Yes that's one way. Other ways keep the reps changing and use supersets, trisets and giant sets.

Personally if you were to ask me I weight train every day, like to stick to the basics and build from there. Having said that newness is welcome as long as it helps and is not gimmicky

"Yes, but you could easily end up with the advanced level progressively within six months to a year in a couple of years or sooner."

Natasha was pleased to hear that.

Farzad continued, "Also remember that aerobic exercise uses the slow-twitch muscle fibers that are more efficient at using oxygen. Fast-twitch muscle fibers use ATP and not oxygen to generate fuel and are the ones used for weight training.

This form of training is also anaerobic training which because of its intensity does not rely on oxygen for energy. When this

happens there is Excess Post-exercise Oxygen Consumption or EPOC, also know as afterburn. EPOC consumes more calories to produce more ATP than was used, restores oxygen levels in our muscles and blood vessels and works with protein to repair muscle tissue damaged in the workout and restores body temoerature to normal levels and lose body fat as well."

"So you are saying that if I did not go for EPOC I would be stealing the calories that I could use for the after burn that is required to strengthen the body and lose body fat.

This after-burn of calories caused by EPOC for weight training lasts from 24 to 48 hours after the workout, while in the case of cardiovascular training, the after-burn lasts for just an hour after training."

"Yes, that's right, one type of training isn't good enough, it seems. You need both cardiovascular and resistance training. Both seem to be mutually exclusive training methods, but entirely interdependent."

"And indispensable to health," Farzad added. "Also, don't forget to stretch after training to keep your muscles flexible and working well within their range of motion. Cooling down at the end of workouts is also important to restore muscles and the heart rate to the original resting and less excitable state."

"So, you mean that I will continue to burn calories even when we stop training, even in my sleep like when I watch television also."

"Yep," Farzad nodded.

"Wow, that's true value for money!"

"Yes. Just to recap what I've told you, Natasha, muscles are essentially made of fibers, or rather filaments, known as myofibrils. These are then grouped into spindles. These fibers contract when you lift weight. But in the process of doing this against resistance, these fibers sustain minute microscopic tears."

"Do you mean injury?"

"Yes, in a sense, but healthy injury. That's because in response to these tears, the body compensates and makes new, healthier and bigger muscle fibers, bigger myofibrils. This compensation has two very exciting effects. One is that the body has to burn more calories and expend energy to heal these minute tears, and the other is that the BMR increases..."

"That is my EPOC the rate at which I burn calories while my body is at rest?"

"Yes, while you are sleeping, resting, breathing, digesting, doing all of the activities you need to do while at rest. The increase in the size of the myofibrils creates a situation of muscle hypertrophy (increase in size), and this in turn, increases the EPOC and BMR."

"And Farzad, we usually work out one body part a week, right?"

"Yes, to ensure optimal rest, recuperation and muscle hypertrophy."

"So, you mean that with weight training, I become a calorie burning machine and can burn calories in my sleep. So, by not doing weight training, I steal the excess calories that I could have burned in my sleep."

"What's that supposed to mean?" asked Farzad, puzzled.

"It's just a way with words, a game that I play with Susan. It means that if you don't do things to use the calories you need for your health, then those things that you don't do steal the healthy calories from you."

"That, Natasha, sounds a lot more complicated than resistance training," Farzad laughed.

As expected, Natasha made rapid strides in the world of weight training and Farzad became her mentor for fitness, just as Susan

was her mentor for nutrition. The weight, of course, started to drop, but more importantly, her shape started to change.

And Farzad was quick to notice. The loose, tent-like T-shirts were replaced with fitted T-shirts, sports bras and tights. With her long hair tied up in a high, easy ponytail, and her wristbands and headband, Natasha looked like the perfect exercise fiend.

When Farzad commented on this transformation, Natasha gave him a friendly hug and exclaimed, "That is because I am the proud owner of a new shape and a mirror image that I love!"

Members in the gym were fascinated by the focus and intensity of Natasha and Farzad's training standards. Natasha looked powerful when weight training, perhaps because of the grace that was part of her from her gymnastics and dance background.

"I have this affinity for movement," she would often say to Farzad when he complimented her on her form, technique, alignment, posture, and of course, grace.

The conversations about muscles continued – the origin and insertion of muscles, the agonist-antagonist and synergist pairs of muscles.

Muscles of the body all have specific points of origin and insertion and work primarily in pairs and groups . Agonistic muscles are the prime movers that surround a joint and antagonistic muscles assist the agonist muscles by working in the opposite direction.

Take for instance the biceps. When you need lift a plate or carry a bag or do bicep curls, you will need to, contract your biceps to shorten or flex the elbow joint to be able to lift. The tricep offers assistance by doing the opposite, lengthening moving in the opposite direction and extends the elbow joint. In this case the biceps become the prime movers or agonists, triceps the antagonists or assistors.

In addition there are other muscles of the fore arms that area attached to the elbow joint, like the brachioradial is that go along and work synergistically with the biceps, the agonist to cause action and movement.

Take a look at this chart, see how simply the body's muscles are organised:

Agonist Muscles (Prime movers)	Antagonist Muscles (Assistors)
Back	Chest
Shoulders	Chest and back
Abs	Lower back
Biceps	Triceps
Agonist Muscles (Prime movers)	**Antagonist Muscles (Assistors)**
Quadriceps,	Hamstrings
Shin	Calves
Glutes	Hip flexors

Those who overheard wondered if they spoke about anything else at all. And very aptly, they were nicknamed Mr and Ms Muscle. Some even went to the extent of pairing them as the biceps and triceps of the gym!

In another such conversation quite early in the program, Natasha had asked Farzad, "Going back to muscle fibers, Farzad, they are made up of protein, right?"

"Yes, they are."

Farzad, you know the program that Susan had set out for me…"

"Yes, you mentioned that earlier – the 1+1 = 11 health system."

Natasha showed the whole Power Health Plan docket with

Farzad on her iPad once again, saying, "I would need to boost my protein intake."

"Absolutely! You might need to look at some protein supplements, such as whey protein. Farzad pondered over the protein chart BV chart that Susan had given Natasha and added some new Biological Values BV. "Whey is the protein missing here; it has a biological value of 104," he said.

"Oh, so this is even better than the 100 BV of egg protein. So how do we do this?" she asked.

"Add ½ a scoop of the protein shake with milk before your workout and ½ a scoop within 15 minutes of finishing your workout, or increase the number of eggs you eat."

"Are these supplements safe? Or, would you say that the risk of avoiding supplements is far greater than the benefits of having them?"

"You are so right about that. Sometimes, it is difficult to consume all the protein you need from your natural food. One of the issues is convenience; the other is an increase in calories and fat. But ½ a scoop of whey protein is usually only 25 calories for 15 grams of protein, and one cup of milk that gives about 10 grams of protein is about 80 calories. This is why a whey protein supplement can become useful."

"Farzad, it just struck me that sugar and white bread, which are refined and processed foods, are considered normal, when in fact, they have the worst possible side effects. Sugar converts to fat and cholesterol in the body; refined oil lines the arteries with plaque, and yet, people consider the *samosa* and other fried food as normal. And the people who consume all of this are under the false impression that everything they eat is natural and consider a protein supplement harmful.

"My answer to them," continued Natasha, "is that I would rather have a protein supplement than have sugar or a *samosa*. In

the case of protein supplements, refined may be more convenient than some of the normal food. Of course, I would need to keep up my water intake of one glass every hour and include my complex, colorful carbohydrates at every meal, so that the protein is used well for muscle building. I guess my protein intake must be adjusted according to my activities and intensity of training."

"You're so right, Natasha. But even then, it is better to consult your physician or health professional before you begin consuming protein supplements. This will help to avoid potentially harmful side effects."

After Natasha started the protein supplement and additional vitamins, she had even more stamina, which enhanced her fat loss and changed her body shape. She started to look lean, graceful and strong. Her WHR was back on track and changing for the better.

On another day, while doing her incline chest press, Natasha asked yet another muscle-oriented question. "Weight training increases the size and/or number of myofibrils; what does cardiovascular training do?"

"Cardiovascular training increases the number of mitochondria in the heart and lungs," Farzad explained.

"Oh, you mean those little organelles in the cells that improve the uptake of oxygen or how efficiently I could use oxygen to increase my stamina?"

"Right, and by improving the uptake of oxygen, they increase your stamina."

"So, are you saying that weight training increases muscle power and strength and cardiovascular exercises strengthen the muscles of our heart and lungs?" asked Natasha, as she proceeded to her next set.

"Yes, the number of mitochondria can go up to 3,000 to 4,000 in these cells."

"Do these numbers decrease when we stop exercising?"

"Not really, but if you become sedentary again, over time they surely will. Natasha with the body, it is either 'use it or lose it.'"

While Natasha loved her lower body or leg workouts, she certainly did not like the soreness that accompanied them. Her lower body workouts were extremely hard and she experienced a lot of muscle soreness, so much so that she found it hard to sit on a chair or climb the stairs to the second floor, as she had gotten used to doing. The soreness, or as Farzad explained, Delayed Onset Muscle Soreness (DOMS), had hit her really hard after two days of her leg workout.

"Hang in there," Farzad had advised, "it will get better as time goes by." And it had. The soreness reduced as her muscle strength increased; she had many more myos (myofibrils) and mitos (mitochondria) to work for her now. When she upped the poundage for gaining a progressive overload advantage, the soreness returned, only to settle by the next workout.

Fortune was finally favoring Natasha, first with Susan and now with Farzad. She felt that with both of these influences, she had discovered the program that worked for her.

She wrote her affirmation:

My new mantra is 11 = athleticism and athleticism = nutrient density + metabolic intensity + weight training and aerobic workouts.

She also affirmed:

I love all of my workouts. I desire to own more myos and mitos. These multiply the energies of my body's real estate manifold and will always keep me looking youthful.

After almost a year of her new journey, Susan came to meet Natasha one weekend, and they hugged each other like long-

lost friends. For old times' sake, they decided to go to the Cha Bar. As was wont these days, the tables had turned and Natasha was talking to Susan.

"Natasha, you look stunning," said Susan, noticing Natasha's glowing skin, stable and strong shoulder and pelvic girdles, a long erect spine with the perfect curves, gently pumped by biceps, quads, hams and calves, a lovely, chiseled face with high cheekbones and a sharp jaw, noticeable now because of the absence of fat, a curvaceous waist line and the hint of some smart looking abdominal muscles.

"Look at this amazing waist curve. It is to die for."

"Really? Susan, I am just so excited with all of this. I want it for everyone. It is because my WHR is right and I have lost oodles of body fat and gained prized muscle tissue. Do you know, I am so excited with all of this. I want it for everyone."

Susan smiled at Natasha's enthusiasm.

"Susan, you know what, we need to change our thinking about weight and BMI and start to think more about body composition. Let's make this revolution a reality, not just for bodybuilders, but for normal people like you, me, dad, Pradeep and Nina *maasi*."

"Three cheers to that thought, Natasha! I agree, the quality of weight loss is more important than the quantity," said Susan.

"The WHR, Susan, is one of the most important markers of health, irrespective of the weight," continued Natasha excitedly. "Women will have fewer menstrual problems, men fewer heart attacks, and there will be a lot less diabetes in our country. Central and abdominal obesity is worse than fat in the hip region, because fat cells in the abdominal region are larger and lodge quickly around the arteries of the heart, and they are also more insulin resistant."

"But let's forget that and focus on what we would like to have."

"Yes, I hail that. Let's be totally positive."

"So, what are the other important numbers for health?"

"The body composition numbers, especially the fat percentage. Susan, you know that we have fat mass and fat-free mass."

"Yes, fat-free mass is made up of bone and muscle..."

"Yes, and water and essential fats; you know the ones we discussed with our oil expert?"

"Isn't it fascinating that essential fats can be part of a lean body? It's almost like a paradox, but it's true. Healthy fat can make us lean, but we need to use it sensibly."

"And you know what, I simply dig muscles now. I am known as Ms Muscle in the gym."

"Did I tell you why I never took up weight training, Natasha? Same reasons as yours; I didn't want to get bulky and big, and that was a typical unthinking response from my side. But your weight training experience is truly inspiring. Look at you, and look at these awesome numbers. You have lost just 8 kg in the past six months and all of that has been fat weight, because the inches have gone and the WHR is really down."

Results after weight training with Farzad... magical!			
	July 2013 (before Farzad's Intervention)	Jan 2014 (after 6 months of weight training)	Total loss
Weight in kgs	76	68	7
Muscle in kgs	22	31	+9
Fat in kgs	32	14.6	17.4
PBF %	42	22	20
WHR	0.95	0.81	0.21

"Yes, it is close to 0.85. I want to get it close to 0.75. And guess what, I am totally PCOS free. No acne, no missed periods, no hair fall, no gritty neck anymore. I am feeling so positive now. Look at my arms; don't they look neat? Most of the flab has vanished. And look at the definition I have got in my calves and thighs," went on Natasha, totally unaware that they were sitting at the Cha Bar and displaying her muscles with childlike excitement. Suddenly, she remembered and colored, "Oops, I forgot where we were, sorry!"

"Don't be. This is the new transformed you – beaming, happy, excited about so many small things, proudly showing off your muscles, or should I say your achievement. Natasha, that is so fantastic. I am so proud of you! You are this close to becoming the light at the end of that tunnel yourself, this dark tunnel of obesity that we journeyed together, and yes, you have mastered the art of not stealing the good calories."

"Have I? Really? I love you, Susan, for being there for me."

"And what about Farzad? How do you feel about him?" asked Susan in anticipation.

"He is a fantastic professional. I am so glad I met him and started muscle training. I want to be the light at the end of the tunnel for others. I want that no one ever suffer in this life for want of being healthy."

Natasha's affirmation had changed, had become all-encompassing of the different aspects of health.

I must weight train three times a week to make my health. I will always be open to new, scientific ways to make health rock solid. I love my life.

That night, Natasha promised herself that she would do all she could to help people live a life of healthy habits and healthy musculature, and never dream of committing suicide. Natasha felt that if her mother had felt this way, and had the same experiences

that Natasha had recently been through, her life events would likely have turned out differently. After a very long time, Natasha experienced some closure to the question that had haunted her all of these years about her mother, the question of 'why did she?' *Three cheers to Susan and Farzad.*

FOURTEEN

Triumph

Triumph, the annual fitness competition at the Platinum gym, was round the corner. Triumph was a fitness competition like no other. Points were allotted for competition preparation as well as competition day. The gym was abuzz with fitness conversations. Participants and members engaged in heated debates over pressing fitness issues – cardio vs. weights or both; more reps or fewer reps; stretches before or after workouts; avoid carbs at night; rice or no rice; body fat percentages vs. weight; the topics were endless.

What was unique to this competition, which was known to be among the toughest, was that 30 points were set aside for the three prep months and 15 of these points were for 36 exercise hours, trainings that had to be clocked in the month in the gym. This meant two hours per weekday and Sunday was to rest. The other 15 points were set aside for sticking to a preset diet plan of six meals per day, and eating on time every three hours. No junk or refined nutrition was allowed. Fitness counselors and nutritionists checked diet recalls on Mondays and Thursdays. Whatsapp picture recalls were used to check in-time nutrition.

THE TRIUMPH FITNESS COMPETITION INFORMATION

Exercise/prep	Description	Assessment
3 month pre competition preparation	-15 points for 36 workout hours at the gym over 3 months - 15 points adhering to a preset diet plan	30 points
Bench press upper body, chest	95 lbs women, 159 lbs men Women: Olympic bar plus 2 plates of 25lbs Men: Olympic bar plus 2 plates of 55lbs	No of reps
Squat, lower body, legs	114 lbs women, 134 lbs men Women: Olympic bar plus 2 plates of 35 lbs Men: Olympic bar with 2 plates of 45 lbs	No of reps
Push up	Full body push ups for men and women	Reps/min
Sit up	No of sits ups that can be done in 1 minute for both men and women	Reps /min
Cardio	Running on a treadmill	Distance covered in 10 mins
Note: Only full range reps would count as one count. Here are the full range parameters: Squats= thighs/hamstrings parallel to floor, upper body upright, Bench and push up = elbows in line with shoulder at 90 Sit up = lie down with bent knees, hands outstretched in the front, For the rep to be counted, knee touches elbows while sitting up, shoulder touches mat while going down		

Women were set to win the Triumph Diva and men the Triumph Man trophies. A special category was created this time – a super prize for the Fitness Person of the Year. Those members

who were in the gym for a year and showed the maximum gains in their fitness ability and health markers such as the WHR, body fat percentage and body weight over the year, and specifically in the three-month prep period, would qualify.

This special category threw the competition wide open, and attracted many new participants. The number of participants, called fitness pros, had doubled from the previous year's 30 to 60. Trainers were incentivized to motivate members to participate. The gym felt like it was truly in the business of fitness and sales had started to pick up. Apparently, news of Triumph had spread far and wide.

YouTube Video footage of workouts, Facebook posts, selfies, daily Tweets, Instagram posts and diet videos created a buzz. Triumph tees, badges, caps, shoe bags and sippers were seen all around. Fitness pros were immersed in intense discussion of reps, meals before and after workouts, how to stay off the burgers, booze and binges, measuring food to the last gram, what supplements to take and how to gain the most workout points. Everyone hoped that their immunity would be up, so they would not fall sick and lose precious points. It was important that 36 straight workouts could provide them with a 30-point head start.

When it came to potential winners, Janet Desa led the list in the women's category. The pompous and standoffish winner of the Triumph Diva for three years in a row was sure she would win this year too. Farzad was her trainer. Previously she was running 5 km in 28 minutes, 50 pushups in a minute, pushing 90 pounds on the bench and squatting at an amazing 160 pounds. Janet was, however, a lonely winner. Her dismissive and high-handed attitude had won her many enemies. This year, she decided to go alone – not with Farzad or any other trainer.

As they walked home one evening, Farzad asked Natasha to participate in the contest. Natasha froze. Contests were synonymous with her mother's suicide, but Farzad would never

understand that. No way, no contesting for her, was her first thought. She said, "Contests will be a huge distraction from the fitness I want to achieve, Farzad."

"Come on Natasha, you need to enjoy your fitness," he urged, sounding disappointed. "You need to build on that 11 = health focus. Add more to it. Sharpen your fitness focus now and allow this contest to provide the stickiness you need to achieve even higher fitness goals. You know you are stagnating."

"Farzad, don't get me wrong. You make me sound so boring."

"I'm talking about showcasing your achievements to the world. I know you can do it."

Natasha shook her head pensively. "No," she insisted as she walked on, bidding him goodbye as she reached the foyer of her apartment.

Farzad pleaded, "Please think about it, Natasha Sharma. Triumph will shake you out of your comfort zone, much like an athlete who is about to beat the world record. Beat the record of this gym for women, Natasha. You can do it!"

"How can I beat the indomitable Janet?" said Natasha. "I could never squat like her."

"Oh, Natasha," sighed Farzad as he held her by her arms. "You just need to think of doing your best. The 30 prep points are a given. We can build on the reps for the squats and pushups. You are intelligent; treat it as a learning experience. Natasha, do you know how good your genetics are? I can just see you doing so well. You could win in the special category of the Fitness Person of the Year. That's new for this year."

Farzad, of course, was ignorant of Natasha's feelings about contests. A logical thinker who thought with his head, he didn't pay much heed to people's emotions. Of course, he knew about her mother's suicide. Everyone knew that. He didn't know that Natasha had lived with those feelings for over a decade. He didn't

sense that contests could bring back the painful memories of her mums suicide. She did not want to enter that space again now that she was experiencing some closure to that issue.

Natasha sighed and hugged Farzad. "Gosh, you so want me to triumph, don't you? Okay, for your sake, I will think about it, but no promises." She stomped off and hit the stairs to the fifth floor two strides at a time with her gym bag on her shoulder. Farzad couldn't help but notice Natasha's confident stride and amazing muscular definition visible through her shorts and razor back, the only sportswear she wore these days. Her quadriceps and hamstrings, which had been trained synergistically, looked strong, solid, and well, beautiful. The horseshoe of the triceps muscle and the peak of the biceps was beginning to show, as was the grace, curves and strength of her abdominal framework. Farzad could not help but admire Natasha's radiating magnetism, sex appeal and athleticism as he walked back to the gym to collect his gym bag. All of this got done in 6 months of consistent training.

"Why was this beautiful, capable and totally athletic woman so damn obdurate?" he questioned himself, feeling totally frustrated.

He ran into Janet as he was leaving the gym. "What's up, Janet? How are the workouts going?"

"All good," she sniggered. "How is your fitness protégé coming along?"

"Great," he said, doing a good job of masking his disappointment, "couldn't be better".

"Look at me, I am so strong and fit," Janet said, pirouetting coquettishly like a ballerina.

A power lifter looked rather odd doing that delicate stuff, thought Farzad, smiling to himself.

"Don't forget that you've been my fitness coach for the past three years. I am a natural winner," she said, tugging at Farzad's collar. "Natasha just can't beat me."

"We will see," said Farzad. "Good luck, Janet."

"And one more thing," she said, pumping her fist. "Janet is the queen of squats."

Farzad rushed out of the gym; Janet's stranglehold was suffocating him. He smiled as an idea struck him. He was searching for a friend on Facebook.

Susan was driving home when she heard the Facebook Messenger notification on her phone. "Hi Susan," Farzad had messaged. "Please convince Natasha to take part in the Triumph fitness contest. I know she will do it for you. Regards, Farzad. 9234000----- Call me."

Almost immediately, the phone also rang, and of course, it was Natasha.

"Yes, Natasha darling," Susan said.

"Susan, this Triumph contest, what do you think? You know how I feel about contests. I don't know if I am ready to compete yet. Susan those memories of mum have subsided to a large extent. I dont want to re awaken them."

"I can feel how pained you are by this," said Susan. "But do it for me, darling. I would love you to be the Fitness Person of the Year," she added assertively.

"What?" said Natasha, shocked.

"Yes, I meant that. Participate for me. You know you are a winner and I need you to win that contest, Natasha."

"Okay," she said meekly, "but..."

"Go ahead. Give it a shot, you have nothing to lose," Susan almost ordered her.

"Farzad, pushups have never been my cup of tea," Natasha grunted.

"Make them your cup of tea, Natasha. Let's take it one step at a time. Pushups are amongst the most powerful freehand exercises when done well."

He proceeded to instruct her on the right posture. "Align the body well. Place your palms shoulder width apart with the wrist just aligned under the shoulder. Shift your bodyweight forward. Keep your spine neutral. Keep the shoulder girdle and pelvic girdle stable and strong in a plank position. Hold your navel into your spine gently, maintaining a 30% contraction all the while. Ensure that your heels are in line with your toes. We will start our training with modified pushups on your knees. For Triumph you will have to attempt 45 full pushups. Breathe in, keep the arms wider than the shoulders and drop your entire spine along with the shoulder and pelvic girdles straight to the floor. Do not flex your spine at all. Push your body up as you breathe out."

Natasha tried to do exactly as he was saying.

"Stop, stop," he cried. "Why are you using your neck? How many times have I told you to keep your neck and shoulder girdle aligned and stable? Using your neck out of alignment puts an added load on the vertebrae of the neck and can lead to cervical problems and niggles."

"So much information; how do you expect me to process this? I can't do this."

"You are not to say no, Natasha. We don't have the time for that. Come on; move it! There's a lot at stake here," he said as he heard Janet's now-familiar grunting at her squat for the nth time that week. And Natasha went on as she heard Susan say, "Do it for me."

As Farzad continued tirelessly, Natasha focused hard. "Heels in line with your toes, spine long, navel in, girdles tight, neck neutral

and stable and drop the body down as a plank, Natasha. The girdles should move at one time together."

Natasha tried and failed, and tried and failed. But what she did not know was that each time that she tried this complicated movement pattern with the desire to win, her brain had got engaged in her struggle and wanted to make her win too. The brain was also doing its best to learn the winning pushup with the speed of lightning. That is how it always works for everyone. Desire, commitment, clarity and consistency help the brain to work for us and make us winners.

"Come on, try harder, focus. You can get it," Farzad would encourage her constantly. "Why are you looking so exhausted?" he would ask on some days. "I hope you are eating well."

Two weeks into the training and Natasha was panting for her 15th full body pushup at a go.

"Farzad, this is like *Karate Kid* training."

"It's worse. Come on, go on your knees if you are tired. 25 reps are a must today," he said, snapping his fingers, "22…"

"I can't go on."

"You have to make 25 today."

"I will drop dead," said Natasha going for the modified push up on her knees. obediently listening to her task master.

"Don't worry, I will revive you."

"24… and 25!"

"Phew!" Natasha collapsed.

Farzad had to get Natasha to hit 40 full and not modified, on the knees pushups. Her score had to be better than Janet's. Janet had done 35 full Pushups. So, he started to use weights on her back. He also encouraged her to do one-leg pushups and negative holds to improve her alignment, range and strength.

Farzad was on her case like a ton of bricks. Sometimes, it did feel like he would bring her back from the dead. Of course, she had to train in all aspects of her fitness – cardiovascular, muscles, flexibility and pre- and post-workout nutrition were all extremely important. It would have been impossible for Natasha to even qualify, forget win, without all-round training.

Natasha had started to use a 3.5 kg weighted vest for running that fit snug to protect her spine, so that when she did not use it, she could run like the wind. The weight of the weighted vest was calculated at 5% of body weight. Natasha was about 70 kgs at the time. All the time Natasha believed that she was training for the Fitness Person of the Year category, but Farzad was pushing her to participate in the Triumph competitions.

He took her for a parachute run outdoors, and the feeling was exhilarating. Natasha felt as light like the breeze. Then, she performed the plank and held on for a whole minute perched on the rocks and tetrapods by the Marine Drive promenade to strengthen her core to squat and push up better. If it weren't for Farzad, she would never have done such a thing. A small crowd gathered around these two fitness pros. Natasha's elbows and forearms were bleeding but she didn't complain. In fact, she had begun to enjoy the intense process. The competition bug had bitten her. She had even softened her demeanor, started smiling and acknowledging other members in the gym. Members started to consider her human, and thought that Farzad and Natasha were a couple. But no one, not even Farzad and Natasha, knew the truth.

"Come on babe, it's squats time now. Here, drink some water and then let's move."

Training for squats was equally intense. The 20-kg/44-pound, 7 ft in length Olympic bar had to be placed precariously just below the neck. Gosh, it was heavy, Natasha realized, as she gripped her core muscles and held her navel into her spine to

maintain stability and strength. She needed to do that to push the bar up in a straight line without taking the stress on her knee joint.

"Oh Farzad," she said. "This feels just like the core training plank that I did on the tetrapods at Marine Drive, when my elbows were bleeding."

"How right you are, Natasha! I have gone hoarse trying to explain that to people. Everyone is so apprehensive of squats. It is a compound, multi-joint movement. The joint action is at the hip, which has the largest muscle in the body, the glutes."

"It's hip flexion," Natasha piped in to cut off the animated 'squat is the king of exercises' lecture that was about to begin. "My 30-second rest is up," she declared quickly and started stacking up for the next set.

"I go 30 pounds each side."

"Yes, strong girl!" Farzad prodded, that's just 10 lbs short of what you need for competition day. Go for 15 reps at least at 30lbs. Thirty-five lbs will become easy then. "Push the hip out and squat. Don't worry; push up through the heel and shoulder girdle straight through with your spine. Hold your back tight."

The instructions came thick and fast ever so often during the three months. "Increase that range, Natasha. Go on, get your thigh to touch the top of the calf and then push up," he said, snapping his fingers. "It has to be quick... Lean forward as you go down. Ensure that your shoulder aligns with the middle of your thigh."

"Gosh, so much to remember!" mumbled Natasha, drinking her sixth glass of cool water to keep her hydration levels up.

It was just three days before the competition. "This is it, Natasha," Farzad said. "Today, you just push up till you drop. No counting loudly." Natasha gathered her thoughts, took a few deep breaths and started. Her hands were perspiring. At the count of 12, her hands slipped. She fell on her face and her nose started to bleed. Farzad couldn't believe his eyes. He rushed to get some ice.

"Stop!" Natasha cried out. "The ice hurts. Just leave me alone. Let's get back to this in the evening."

Farzad shook his head, but realized that it would be best to leave Natasha alone. All day, Natasha regrouped and spoke to herself. She focused on the number 40, the number of pushups she wanted to do today. At 5 PM, she was warmed up and ready in the gym. She didn't greet Farzad or anybody else; she began her pushups and continued for one whole minute as though she were in a trance. Slowly but surely, she touched the number 40 before her throat dried up and her face and arms were flushed.

Farzad pumped his fists. "You are a winner, Natasha. This was awesome; really strong and beautiful! You pushed up a whole 10 more than I had expected."

"Oh Farzad, I am so excited!" she said, and hugged him. "This journey to Triumph has been stunning. I don't really care if I win or not."

"You're already a winner, Natasha. You've earned a rest now. Let's go to the movies."

Natasha agreed readily. "What is the agenda for tomorrow?" she asked, as they got ready to leave the gym.

"Lots of sleep and rest, drinking lots of cool water and eating full meals"

"You mean no more workouts?"

Farzad nodded. "Preserve your energy for the competition."

It was competition day. Countless selfies, pictures, Instagram posts, comments and tweets were raking in new eyeballs to a growing fan following for Platinum gyms.

Susan was overjoyed. Her intervention and initiative had worked. Natasha was transformed, resurrected rather. "Who

could have imagined you this way, Natasha?" she said, as she congratulated her.

Triumph was meant to signal a new wave of fitness for the Platinum Gymnasium brand. The promotions leading up to the inauguration ceremony were bold, new and in your face. The best fitness bodies in the business were contracted to run with the flaming torch and spread the word of fitness amidst contagious cheering and unprecedented media coverage. This was in anticipation of the unique inauguration that was to follow.

Unique because Jeremy Lewis, Mr Universe and Amanda Smith, Ms Universe of the United States were going to open Triumph not in person, but as holographs. Though holographs had been used internationally by rock stars and some Indian politicians, it was a first for the gymnasium space. A 3D live, digital creation of fit, muscular bodies in action would set the right note for the competition. Platinum gyms were engaged in a huge brand-building exercise. They planned to make a million people fit worldwide.

At 5 PM, a large crowd had gathered to kick off the torch bearing ceremony in the garden where Natasha and Susan used to take their morning walks earlier in the year. Residents, gym members, fitness enthusiasts, bodybuilders, parents, children and cheerleaders gathered amidst floodlights, lots of cameras and unprecedented television coverage. The torches were lit. Natasha, Janet and other participants were warming up every muscle and sinew in their body.

The cheering suddenly got louder. Torchbearers approached the lounge, holding the Platinum torch of fitness. At 6.40 PM, a laser beam zoomed across the foyer and lo and behold, the holographic, muscular forms of Amanda and Jeremy emerged. Amanda was in a florescent green sports bra and orange tights and the overpowering frame of Jeremy appeared in bicycle tights, navy blue with orange flecks. The energetic notes of *Eye of The Tiger* and sparkling lights

completed the jaw-dropping experience, and collective gasps were heard from the crowd. "This is just so amazing," Natasha exclaimed. "I think our gym is 10 years ahead of time." Unable to take her eyes off the holographs, she said, "Look at Amanda's ripped muscles. I want to be like this."

"Are you sure you want that look?" quizzed Farzad.

"Of course, it is the look that has the magic of health. I am feeling their energy in my DNA."

The flaming torches were rested on a special pole in center of the lobby. The countdown to Triumph began. Men and women settled in their respective sections. Jeremy and Amanda congratulated the gym, wished the participants good luck and disappeared into thin air as the mesmerized audience looked on.

Natasha had got off to an excellent start. She had maxed the nutrition and exercise consistency section at 30. She was 68 kg now and had an unbelievably healthy 17 % of body fat.

"Farzad, this is crazy," she remarked. "The calories and meal consistency have been the same for the past three months, yet I have lost just 8 kg of weight and 17 kg of fat and gained 9 kgs of muscle from 22 kgs to 31. So, who stole my calories if my diet did not?"

"Remember the 30-pound squats, the bench press, 35 pushups, the leg press? They stole all the bad calories, Natasha, and gave you this body."

"That is just so cool! I can eat as much as I want, of nutrient-dense food of course, not starve, squat, push up and lose weight and fat, and get all of this amazing definition. Look at my calves, Farzad. They are strong and amazing!"

"Nice work, dear, but you have a competition to win. Let's focus."

The cheering was deafening by now. Susan, Dad, Pradeep, Nina *maasi* and even Maharajji had come to cheer for Natasha.

It was nearly 7 PM. Natasha's heart was racing as she started to feel the spirit of competition in her veins. The competitors lined up, discussing strategies and warming up.

The exercise order was the squats, situps, bench press, pushups and cardio. The women went first. Natasha squatted 15 reps did 25 situps, ran 0.8 km in 5 minutes and benched 15 reps; she did not push herself too much here, because she wanted to preserve her energy for the pushup round.

The fitness saga had begun. Sometimes, there was loud cheering from the men's section and sometimes from the women's side. As is the case in all competitions, some were overjoyed, others were disappointed because of injuries, while some got cold feet or were disqualified.

Natasha was all confidence. She was so into doing what she had to do that she did not even notice that she was a crowd favorite, not even registering the entry of Bollywood star Asin Khan. She went on to do 41 pushups in one minute, one big all-out effort, whereas a distracted Janet did just 36, one more than the previous year.

All in all, the entire competition was over in five brief hours. So many months of preparation were a non-negotiable part of a five-hour competition. That is why the initiative taken by Platinum gyms to reward the fitness effort was laudable.

Finally, after the grueling five hours, the scores were announced.

Natasha was at fourth place with her sit ups, 3rd place for squats, 3rd place for cardio, did not qualify for bench with just 15 reps and got first place for pushups and made the full 30 points for the prep of diet and exercise. Janet Desa, as expected, won the competition hands down at 25 squats, 30 bench presses, 32 sit ups and 36 pushups. But Janet had scored 23 points for the fitness prep having missed several workouts and nutrition recalls.

"Wow Farzad, it's over," said an exhausted but glowing Natasha. "I'm going to miss all the workout madness that you've put me through."

"Don't worry," said Farzad, "Nothing stops. You still have a lot to do. You wanted to look like Amanda, you said."

"Hmm, absolutely. I'm going to shower and get ready for this big dinner we've been invited for."

All participants and members were invited for dinner at the XO restaurant. It was announced that the remaining awards would be announced there.

The setting at the XO restaurant was stylish, fashionable and elegant. Even muscular and fit women looked beautifully feminine and powerful, busting the myth that muscles made women look manly.

The MC announced the five nominations for the Fitness Person of the Year, just as Susan was complimenting Natasha on how lovely she looked.

"And the winner is... NATASHA SHARMA," boomed the MC's voice.

The applause was deafening. Farzad, Susan and everyone stood up, as Natasha made a slow, guarded journey to the podium. *It was a different feeling without Mom...* Natasha choked back her tears.

In an off-shoulder black gown with a slit down the legs and red stilettos, Natasha looked like a shining star. Her contagious smile lit up her eyes and her soul. Yes, what Natasha had achieved was mesmerizing. Tears of joy were running down Susan's cheeks and Nina *maasi's* cheeks as well ("Thank God for waterproof makeup," Nina *maasi* thought).

Natasha started to speak with the spotlight on her. She thanked Susan, Farzad, Pradeep, Dad, Nina *maasi*, Maharajji and all the gym

folk. And as she looked the audience in the eye, she continued, "Thank you. My biggest thank you is for the perfection of the human body. It is this human body that has made me appreciate the difference between life, death and suicide. My mother prepared her life... for suicide, just because she did not prepare her life for fitness."

There was an audible silence. The audience was shocked.

"And we are all preparing for suicide," Natasha continued, "until such time that we don't take our health in the spirit of the life that it creates."

One could have heard a pin drop, so silently was the audience focused on Natasha's words.

"For 12 years after my mother died, I was addicted to tranquilizers, alcohol, food and cigarettes. The bucket loads of muffins, *barfi*, wine, chocolate, *samosas*, *jalebis*, burgers, pizzas, deep-fried cheese and chicken and what have you systematically destroyed my body and diluted the power of my metabolic processes. I was eating like a beast and hibernating. I had lost my charm and womanhood. My arteries were choked with fat and cholesterol. I would pant even when I walked from my room to the kitchen.

"I had become uncontrollably aggressive and short tempered. I would slam doors, break plates and scream the house down. This beast in me, created by the metabolic monster, was ravaging and ruling my body. My mother was not like me. She was thin and gaunt, and liked her skinny look. However, thin and gaunt also affects the mind, just as gigantism does. Mum's million attempts at crash dieting and fasting made her deficient in B-complex and Omega-fat nutrients. She suffered severe anxiety. I remember her taking a handful of pills every night to sleep. I thought they were vitamins, but they were tranquilizers. You know the rest..."

She choked, unable to go on.

An audience member piped up with a question. "Would you

say that not finding time for exercise and timely nutrition are suicidal events?"

"Yes," said Natasha, regaining her composure. "They teach you how not to live, don't they?

"Unwanted junk foods are like open mobile applications. They usurp more energy and steal calories from our bodies to digest and convert the junk food to fat. They deprive our body of the food that it deserves."

"What do you mean deprived of the food it deserves?"

"If you fill up on junk, you have no room for healthy food, right? And if we deprive the body of the food it deserves, we get what we deserve – diabetes and hypertension at 25, sudden and fatal heart attacks, hospitals with a wait list for intensive care. And believe me when I say that I would rather attempt a 160-pound squat, or take Farzad's hard-as-nails training all over again, or do a 100 pushups, than go for intensive care."

The audience laughed. Natasha had won them over.

"Perhaps you might find my words harsh, but this is how I see things now, and this is the significance that winning here has meant to me.

"I want my health to light up my life and the life of others now."

"All because you have your calories by your side," piped in an intrigued member of the audience.

In answer to that, Natasha flexed her biceps. The audience laughed and the atmosphere lightened even more. Susan stood up and started to clap and the audience followed suit.

Natasha then introduced Susan as the person who changed her life with the most unique health intervention. She called her entire family and Farzad on stage and acknowledged their support in her journey to health.

The audience cheered Natasha and several members came up to congratulate her personally.

This is when Natasha began to believe that she was about to enter a new phase in her life.

FIFTEEN

Natasha gets her first client

Raghu Srinivasan, 45, one of India's top shipping magnates, member of the Young Presidents Organization (YPO), was an on-and-off member at Natasha's gym. He was also a member of the so-called MS Club along with some of his friends from the YPO. MS stood for Metabolic Syndrome and was also jokingly nicknamed Metabolic Stress and Metabolic Siesta by this group. He qualified for Metabolic Syndrome because he had several conditions together, diabetes, hypertension and elevated triglyceride levels amongst a host of others.

Whatever the name, MS always implied a state of dynamically increasing metabolic chaos, comprising a constellation of uncontrolled metabolic events, triggered mostly by the stresses of modern convenience living and a complete disregard for the things that Natasha had learnt on her fitness journey, such as eating balanced, nutrient-dense meals every three hours or so, exercising, staying active day after day and getting enough quality sleep.

A person who has three of the following conditions – diabetes, heart disease, hypertension, elevated triglyceride levels, low HDL-C or good cholesterol levels and insulin resistance – is

diagnosed with the metabolic syndrome.

Raghu and his elite club of select businesspersons used their intelligence to boost business revenues and join the Rs 100-crore club, but health was another story. After listening to Natasha's hard-hitting talk at the gym, Raghu felt that his response to his own body's unit of business, his health, left a lot to be desired. Natasha was right to say that he had been preparing for his body's self-destruction.

Raghu was born in Pune in a middle-class family of five and lived in a 400-square-feet room. There were as many as 30 such rooms per floor in his five-story building. The surroundings were smelly, garish and noisy. In a so-called compound, Raghu grew up playing a variety of games from *kabaddi* to badminton, throwball, and of course, cricket. Raghu was also intelligent, with the famed Tam-Brahm (Tamil Brahmin) acumen for math and science. He was very hard working as well. When friends would ask how he managed to score a 100% all of the time, he would brush it off with "It's easy. All you have to do is display your DNA for excellence. That's how I do it."

Raghu studied to become a chartered accountant and company secretary with a natural talent for IT. He and Smita, his wife of 22 years, were both supremely ambitious, and wanted to have and bite into much more than their assigned piece of cake.

Smita's reactions and practical wisdom had an enormous impact on Raghu, at least in the initial stages of their lives. Smita would push Raghu to stretch his limits, take risks and keep at the business of grabbing much more of the illusive piece of the business cake. That was how Raghu had clawed his way to the top. He grabbed the best opportunities with astute courage and dedicated perseverance. Within eight quick years, Raghu was seen hobnobbing with the top honchos in his company, and within the next three, he owned his first ship. His own company, Sriram Shipping Private Limited was born. Raghu moved with Smita to

a plush house. The physical intensity of the backyard games had stopped. Raghu now had a treadmill at home, and as is wont with home treadmills, he never used it. Now it was all about meetings, negotiations and collaborations to build his business.

With immense wealth came round-the-clock stress. The health and stamina of Raghu's backyard sports days were clearly a thing of the past. By the age of 38, Raghu had high blood cholesterol and elevated triglyceride levels. The good cholesterol, HDL (High Density Lipoprotein), the one that metabolizes the bad cholesterol LDL-C (Low Density Lipoprotein), was 37 instead of being more than 50. Thus, his LDL-C levels piled up to 150 and clogged the arteries to his heart. Triglycerides are the smallest units of fat, just as amino acids and glucose are the smallest units for proteins and carbohydrates respectively. Raghu's triglyceride levels were at a scary 250 mg/dl. All of this happened because Raghu missed his meals, hardly ate anything but cookies and crackers when he made time, slogged, day and night and did not exercise at all.

Raghu ended up with the effects of lingering, high stress levels in the body, elevated levels of the alarm hormone cortisol. Like most of the members of the MS club, he had no idea that a consistent meal and exercise plan could neutralize the destructive levels of cortisol. For him, it was either a life of wealth and stress or health and middle-income mediocrity. Over time, elevated cortisol in his body caused diabetes, hypertension or high blood pressure, high blood cholesterol and triglycerides, making Raghu well qualified for MS.

On one such stressful day, Raghu suddenly felt odd, slumped to the ground in his plush office, with a sharp, piercing pain stabbing at his chest. He started to sweat profusely and vomit incessantly before he collapsed. He was rushed to Intensive Care or the dreaded ICU, where a battery of diagnostics showed that Raghu had suffered from a stress-induced heart attack aka

broken heart syndrome. Fortunately for Raghu, broken heart syndrome had all the symptoms of a heart attack without really being one.

After his first taste of being jailed in the ICU, Raghu, like many other middle-aged, wealthy people decided that enough was enough.

"Smita, Sriram Shipping has to take a back seat now," he asserted. "I am not going to step into the office until I become healthy again." He stepped down from the MS club and gave himself six months to be disease and symptom free. Neha, his daughter, was graduating around the same time.

Smita's response to Raghu's determined response was lukewarm. Diabetes and MS had to be managed with medication. It could not be reversed, she felt, and money, rather than wishful thinking, was necessary to treat diabetes. The fact was that she and Raghu rarely saw eye to eye on these and other matters. "You will have to think of doing both simultaneously," she said. "You can't let Sriram Shipping fail. It's something that both of us, not you alone have slogged for. I don't think it's right for you to take a unilateral decision like this."

"Smita, dont get me wrong. I care for Shriram Shipping too. But without my health, I am a liability for Shriram Shipping," said Raghu. "You did not have a heart attack, Raghu. It was just a make believe heart attack," said Smitha. "I am taking the next three months off from active work nevertheless. You are free to feel as you wish." With that, Raghu and Smita had more or less parted ways. And that's how Raghu launched his new personal get-my-health-back venture.

Raghu, an avid Tweeter, affirmed his intention with this Tweet: *"Parked at home for three months to get back the health that I have lost over 22 years."*

It was in this state of mind that he had listened to every word of Natasha's talk at the Triumph competition.

He was unsure of Natasha's outlandish, over-the-top, self-destruct angle. Nobody in their right minds would have wanted to annihilate themselves as she was saying; certainly not those who were playing the million-buck game.

As he went deeper into all of the perspectives that Natasha had presented in her speech, he realized that he did not understand health at all. There were no two ways about it – the big brass and the rich role models like him took their health way too much for granted.

Conventional advice regarding health lacked the necessary punch to convince him to change the way he thought about his health. He wanted a piece of that magic and madness that Natasha had conjured up to move ahead and take charge of his health. He was clear – he wasn't going on that ventilator again, and neither was he up to any more of the stabbing pains of a real or fake heart attack.

Having made the decision, he wasted no time in getting her number and called her the next day. Something about Natasha had resonated with him. He couldn't pinpoint what it was, but he knew that her passion, even if it sounded bizarre, was powerful enough to rid him of the degenerative lifestyle habits he had accumulated over 22 years of becoming wealthy.

He gave Natasha a brief summary of his age and medical conditions, concluding with the stress-induced heart attack or broken heart syndrome. He spoke about his resolve to get healthy. "I know you can help me regain my health," he told her.

"Thank you for your interest in my work, Mr. Sriram," Natasha said. "I think you need to cope with stress first…"

"Call me Raghu. Mr. Sriram activates my stress response."

"Okay, Raghu. Look, I am no doctor," Natasha clarified, "and I have only just qualified to be a nutritionist."

"I need passion more than I need qualifications. Your fitness

sense resonates with me, Natasha. I like your assertive in-your-face aggressive and unique fitness style. I also like your personality. I like that it is fitness and not fashion that dominates your sense of style."

Raghu continued, "Your story reveals the unbearable truth that most of us are committing to self-destruction and subconscious suicide when we disregard our health. Like you, I have been through several doctors, health professionals, personal trainers and the gym. Looking back, I realize that it isn't all of these things that did not work; it is just that I have not connected with my own health before going down that path. I must admit that I have been looking for quick fixes, which, instead of fixing me, have done me in."

"I know exactly what you mean," Natasha empathized.

"Every doctor that I have met has insisted that it's all about diet and exercise. And diet and exercise is something I can't get down to doing. Prevention is good, but it is a bit lackluster, as compared to your approach of getting out there and getting the healthy things done."

"Let me give this some thought," Natasha prevaricated.

"Please do think hard. I want a reversal, and you are going to help me get it. What was that line of yours?"

"Which one?"

"They are on the notice board, some of the lines of your speech."

"Really? I haven't seen that."

"Is it 'Show me how to put my house in order...'" asked Natasha.

"And there is another one that I really like – 'Show me how to stop stealing my calories.' I want to see the light at the end of this dark and boring tunnel of medication, diabetes, insulin resistance, and cholesterol and stress. I know I can, with you."

He continued, "Natasha, I want to reinvent, my health not just prevent it, or shall I say, I want to 'Proinvent' my health, not just prevent it."

Spoken in the spirit or a true businessman, Natasha thought, the 'pro' in proinvention was all about being proactive.

"Proinvent, huh? But what would you have me do?" inquired Natasha, sensing Raghu's determination.

"Go through the same processes with me that Susan did with you. Show me how to get the ownership you got for your health, and I am sure things will work well for me."

"But that is not going to be possible, you are just so busy. I have done nothing but health, day in and day out, for the past 2 years and Susan was living with me. I had 24/7 monitoring."

"Hmm..." said Raghu thinking about what Natasha had just said. "Look, I can take a three-month sabbatical to get my health back."

"But what about the minute-to-minute monitoring that is required for you to change?"

"Skype, video bytes, CCTV?"

Natasha laughed loudly. "You are going to have your home bugged?"

"Susan was the bug with you, wasn't she?"

"Well, it's not a bad idea. You could provide a snapshot of your day with a daily video clip as recall."

"Do I take that response for a 'yes'?"

"Give me the weekend Raghu, and I will get back to you."

Raghu's next Tweet was this: *"Setting up closed circuit TV to monitor my diet. My fitness motivator wants to keep tabs on what I do and how I eat."*

Natasha went home and researched this vast subject of MS. She read her texts, her assignments and information from credible

sites. That way, she could come up with an answer and a way to help Raghu.

She spoke to Farzad, who was still her trainer and exercise mentor. She shared with him Raghu's health history and symptoms, without disclosing his name. She wanted to do things right from the start. "Do you think it is advisable for me to help this person, given that I am in the process of nutrition education and do not possess a diploma or degree?" she asked Farzad.

"In a real sense, you would have to be careful, but I think this person is looking for motivation, more than just information and diagnosing. He is well read and intelligent. He knows what he can and can't do," Farzad replied.

"Motivation is impossible without information, Farzad. I told you about the Cha Bar conversations with Susan. They helped me a lot. Understanding the role of foods in the context of living from your moods and personality is what makes for the change. And a constant bombarding of information is required for brain laundering. Susan did that with me every day."

Susan joined them on Skype.

"Natasha, I think this is the best place for you to start," she said. "Right at the top with someone who is intelligent, who knows what he wants, and with someone who is so willing to put his house in order your way. He believes in you and that is key."

"Just think about it, Susan. It's health that we both want, but the motivational techniques required by him and me are so different."

"You are so right," said Susan. "You needed me to become your mind until your mind took over, until you felt the determination to put your house in order."

"That's right. He has already said that he wants to put his house in order even before he starts off. He is self driven from the start."

"Of course he is," piped in Farzad. "He was in intensive care remember, and is a man and unlike you women, he thinks with his head and not his heart."

Natasha snorted at this sexist comment. "But he couldn't think straight about his health," she pointed out.

"That's because he isn't like me," quipped Farzad.

"Okay guys, I will try this," Natasha said, giving Farzad a friendly punch. "I agree it is a good start to my career."

Natasha read and understood some home truths about how Raghu got the MS tag. Raghu wasn't obese in the true sense of the word. He had a hint of abdominal obesity, which had crept up as the fat was stored in and around the viscera or the internal organs in the main cavity of the abdomen. He was apple-shaped when you looked at him closely, but his height was deceptive and masked the severity of his apple shape. And of course, Raghu knew how to dress. However, It had taken years of several stressful events, the pressures of setting up and building a huge business empire, Natasha surmised, that had upset Raghu's metabolism. Perhaps there were family issues too. He seemed the Type A hurried and impatient type of personality, unlike Susan, who was a cool, collected and uncluttered Type B personality.

Natasha reminded herself that there were two types of metabolism – anabolism, which promoted the growth of healthy tissues and muscles, and catabolism, which was the diametric opposite, for it promoted the breakdown or destruction of body tissues for energy by stealing calories. She wished to change Raghu's catabolic profile to a robust, anabolic one.

Raghu was insulin resistant, and therefore, always had elevated levels of insulin. Erratic eating, skipping breakfast and gorging on convenience junk foods were the reasons for this. All business and no play had made Raghu a sluggish, insulin-resistant boy, she thought, smiling to herself. Elevated insulin was stealing this

body's healthy calories, storing fat in the abdomen, breaking down healthy muscle for everyday energy and weakening the body.

Raised levels of the hormone, cortisol was another by-product of the stress. Cortisol usually is the body's wake-in-the-morning hormone. Levels of cortisol peak in the morning between 6 and 8 AM and ebb by 10 PM, when we are meant to feel drowsy. Worry and tension keep cortisol levels elevated. This, in turn, fosters muscle wastage, fat storage and fatigue. Lingering levels of elevated cortisol over a period of time, and another alarm hormone, adrenaline, were likely to have caused Raghu's broken heart syndrome.

Natasha had sent Raghu a health questionnaire and now analyzed his answers thoroughly. Raghu who was 45 years old, 6 ft or 182.8 cms. Tall, weighed 85 kg and had a WHR of 1. His blood pressure was 140 /90, on the higher side; total cholesterol at 240 was high, and HDL at 38 mg/dl was low. The average three-month glucose reading of glycosylated hemoglobin or the amount of glucose that attached to a hemoglobin or iron molecule that showed up on the HbA1c test which measures how well we average blood glucose over the 3 month period was about 7, slightly on the higher side. 5 would have been much better. Natasha noted down everything and compiled a chart that had documented the timeline of his health and all of the stresses in his life. As expected, she saw a pattern emerging from her spreadsheet.

As stresses increased, they caused a metabolic mayhem that cumulatively and silently culminated in the various diseases comprising MS.

RAGHU SRINIVASAN'S UNIQUE STRESS AND DISEASE LOG

Year	Stressor	Metabolic Health Effects	Action
1998	Wife has two miscarriages	Fasting blood sugar high to the tune of 100mg/dl Triglycerides high	Followed a diet and exercise prescription for three months; felt better but could not sustain the diet
2002	Move from Pune to Mumbai. Problems within the management of the company	Mild hypertension High triglycerides about 300 Low HDL	Blood pressure medication Statins for cholesterol Too busy for diet control
2008	Loss of brother and sister-in-law in the terror attacks of Mumbai	Full-blown diabetes Symptoms of weight loss, frequent urination, extreme thirst and hunger Fasting blood sugar as high as 350mg /dl Blood cholesterol remains high as does blood pressure	Hospitalization for three days; oral medication, metformin continues ostensibly for life
2010	Marital issues, distanced relationship with his wife Smita, who was and still is the love of his life	Anxiety sets in, in addition to all the above conditions	Anti-Anxiety medication starts as well Prescribed with 6–8 tablets of SSRI (Selective Serotonin Reuptake Inhibiters) everyday
2012	Company staff on strike, finances adversely affected	Stress-induced heart attack Elevated sugar, cholesterol and homocysteine	Intensive care for three days and hospitalization for a month

Natasha was unnerved. She had but one huge stressor in her whole life and a few achievements. Raghu had so many stresses, so much to go through, so much work and so much achievement in a matter of just eight years. Life was truly challenging for everyone in their own way. Some of these stresses had done Raghu in and put his metabolism out of gear, making him seriously ill. His body was busy stealing his catabolic calories to keep him alive, while he was operating as the CEO of Sriram Shipping.

Everything that Natasha learnt and studied that weekend reinforced her belief that whatever the severity of the health condition, the answer existed in two very important, sensible and indispensable practices – Nutrition Density and Metabolic Intensity, as Susan had taught her.

Diabetes could be prevented, and kept in remission as also elevated blood cholesterol, morbid obesity (more than 30% body fat) and severe heart disease (multiple blocks in the arteries).

When diet plans and exercise schedules were disparate and divorced, they failed to trigger a long-term commitment to health and exponential, larger-than-life benefits. She knew she could help him.

Another thing that Natasha did was to make a list of physical biomarkers that mirrored a person's health. She intended to observe Raghu against these biomarkers when she met him.

PHYSICAL BIOMARKERS AND WHAT THEY MEAN

Dry, facial skin: Dehydration and low antioxidants in the diet; lycopene from tomatoes with olive oil in the diet would do the trick

Rough skin on the arms also known as alligator skin and acne on the back: Require more omega nutrition

Thick, dry skin around the elbows: The liver is becoming fatty and not sloughing off dry skin fast enough. Nutrient-dense, colorful foods, healthy cardio, almonds, pumpkin, seafood, fist-sized serving of protein at each meal

Nails: Firm cuticles signify protein adequacy. White spots could mean a zinc deficiency, small amounts of roasted cashew nut or cashew butter with fruit could help. Brittle nails and hair could imply an iron deficiency. Lean poultry and fish have the best type of iron, the type that is absorbed by the human body. Vegetarians can add lime juice or tomato to their regular meals to better absorb iron from vegetarian food sources.

As she worked on her list, Natasha was amazed at nature's balance of vegetarian and non-vegetarian foods. There was something right about everything. She wanted to take up the right things from everything and all foods, and apply that rightness to different people with different mindsets and cultures. She wasn't going to take any dogmatic stands on vegetarian or non-vegetarian, proteins being better high-carb or low-carb or high-fat or low-fat. Controversies with nutrition and fitness were bound to exist. Only recently she had read that even high saturated fat diets were healthy in the absence of carbohydrates. She was going to take a logical stand always and not get swayed by this that or other fad.

And yes, she reminded herself, she had to ask Raghu about his sex drive. Elevated cortisol and insulin could affect sex drive and ability. This was amongst the first signs of depleted metabolic function.

Feeling more prepared, Natasha called Raghu on Saturday. "Hi Raghu, happy to help," she said cheerfully. "I've worked out something fantastic for you. Let's meet first thing Monday morning."

"Sounds good! Would you like to meet at the poolside lounge at the Sriram Towers 25th floor at 10 AM?"

"Perfect," Natasha confirmed.

SIXTEEN

Helping Raghu Regain His Health

Natasha woke up at 5 AM and organized her pre-workout meal of oats and skimmed milk, kiwi and some protein shake. She jogged 10 km in the garden at an easy aerodynamic pace. She wanted to exercise by herself today and not at the gym. Raghu had sparked a new sense of purpose in her. She wanted to fix that in her mind with the solitude of her workout, and there was nothing like running to do that.

"I want to provide the world with the indispensable service of achieving success through health," she chanted almost like a mantra. By 9 AM, she was at the plush lobby of Sriram Towers. She took the elevator from the second floor. "Today is truly special," she thought. It was her first day at work, her first day of providing the world with the indispensable service of achieving success through health.

Raghu had already tweeted, *"Looking forward to my first meeting with Natasha, the best fitness talent there is."*

They made themselves comfortable by the elegant poolside lounge of Raghu's building. The view was special, because it was a magnified landscape of the view that Natasha had from her balcony, almost identical to where she and her mother would chat. This time, though, the memory of her mother was strangely

comforting, almost like an approval of what she was about to do.

"I am going to help you to *proinvent* your health," said Natasha assertively. "Every Monday, we will meet at your home for the weigh-in and measurements. We will go over details of the CCTV coverage of your food and eating habits. You will begin a gradual exercise program of walking 30 to 45 minutes daily. We will meet at the Cha Bar every Wednesday to learn more and go over how your weeks are going."

Raghu gave her a thumbs-up sign. "Done!" he said. "What about my diet recall?"

"I need to know more about you, Raghu, so let's begin with the weigh-in first and physical assessment."

They went to Raghu's fitness cabin, an annexe next to his cabin. It had a weighing scale, a measuring tape and a body composition analyzer.

Raghu weighed 85 kg. When Natasha checked Raghu's skin, nails and hair, she found his facial skin was sallow and lackluster. "You need to eat more nutrient-dense foods," she told him. Raghu was also largely dehydrated. He had dandruff, acne on his back, and rough skin, also known as alligator skin, on his arms, and brittle hair. All of this pointed to an Omega 3 deficiency. Raghu seemed to be biting his cuticles and seemed a bit edgy.

"We need to stop all of this," she said.

"You mean my biting my cuticles?" Natasha nodded.

"Are you sure this can stop?"

"Yes Raghu, it can. Get your metabolic house in order and everything will get cleared."

She continued, "One last question...What about your sex drive?"

Raghu shook his head and said, "It's terrible."

"What do you mean?"

"I lost it over the years, especially when I got diabetes. Natasha, this is one of the main reasons that my relations with Smita are as strained as they are."

"Oh," said Natasha, making a mental note of the fact that the real test of Raghu's health success lay in him regaining his sex drive.

"Okay, now let's look at your diet recall," said Natasha, as they made their way back to the poolside.

Raghu had written a recall of his diet after his broken heart syndrome episode.

Breakfast was a bowl of fruit and a light cereal. Lunch included roti, vegetables, dal, salad and curd. His evening snack was either an orange or some light cookies. Dinner was soup, salad and some fish or green vegetables.

"What about biscuits, alcohol, coffee…?"

"I gave all of those up after my heart attack."

"That's good. It's a nice beginning to your health plan."

"You mean I don't need your services then," winked Raghu.

"Only I can show you how to get **proinventive**, Raghu, and you better believe that," Natasha retorted.

"I do, I do, I was just pulling your leg."

"Raghu, can we recall your diet before the broken heart syndrome? That will help me to understand your health better."

"I would wake up at 8 AM. Breakfast was an apple and multivitamins; then there was coffee and biscuits at about 11 AM. Lunch came from home, the usual roti and vegetables; or sometimes, I would have a working lunch with my associates, usually club sandwiches, not sure whether it was white or brown bread. I had only coffee in the evening and dinner was the big meal of the day, and usually out...What would I have…"

he said, trying to think. "Risotto, crostini, pizza, sometimes my favorite mushroom soup, *kabab*, baked chicken with mashed potato..."

"What about alcohol intake?"

"Negligible... A couple of vodkas in a month or so, no beer or wine. I lost two of my vice-presidents to heart disease within a short span of six months, and they were heavy drinkers. That put me off alcohol completely. And I was always on drugs to control this, that or the other condition. I have a battery of physicians working for me."

"How many meals did you manage in a day?"

"Well, I managed most."

"Let me put it another way. Did you skip any meals?"

"Yes, quite often – breakfast when I had early morning meets, lunch when we got into long brainstorming sessions. When we were launching a new product, it was a whole day of coffee and canapés and fruit, no meals as such.

"And exercise?"

"Rarely, a swim now and again. I could not make the time for it."

"What about the quality of your sleep?"

"Terrible, I am a really light sleeper. I would play catch up and sleep in the wee hours of the morning. I still take a mild tranquilizer that is meant to keep me calm."

"Yours is a case of stealing calories from your own muscles and bones because of missing meals, not exercising and being stressed all the time. Remember that regular diets and exercise neutralize toxic elevations of stress hormones, not eating enough and stress. You are not typically obese, just 85 kg. The BMI is perfect; it's just the WHR of 1 which is a concern. Not eating enough has made your body break down its own tissues to give you artificial

energy to run your empire. Your metabolism is depleted, thanks to erratic eating and loads of stress. Your stress and health timeline here describe how much you have relied on medication and the suppression of health."

"That's right. I did not see the time or feel the need to change my eating habits. I tried to incorporate exercise but just couldnt manage things."

"You see the need now. And the first change we will make is that starting today, there will not be a single day that you will not have breakfast. Not having breakfast is no longer an option."

Raghu was happy that his judgment of talent was spot-on, yet again – he had understood Natasha's talent perfectly..

Raghu was a patient listener and a good learner. He reflected and executed things fast. This time round, his focus was his health.

For him, every day was important. He had millions at stake by taking a three-month sabbatical from work. This gamble with Natasha just had to give him the returns he was looking for.

Natasha started with the information on macronutrients – proteins, carbohydrates and fats – repeating and adding to the facts that she had internalized at the Cha Bar conversations with Susan and her nutrition education

Natasha introduces Raghu to the 1+1 = 11 health system

"Consider this a 12-week intervention," she explained. "By the end of that period, you will be a new man, and your health, not your stress, will rule your empire and every aspect of your life."

"*Starting the 1+1=11, the perfect business plan for my health*," Raghu tweeted. His number of followers had doubled now to 200.

Raghu started his Power Health Plan program much the same way as Natasha had, and he maintained the 11 score from Day 1. He read and internalilzed the principles of the Nutrient Density

and Metabolic Intensity. He went over the key data again. He had employed two specialized chefs, and with Natasha's help, had given them clear instructions to plan all of his meals with clockwork precision. He also had the chefs monitored through CCTV.

"Time is of essence to set your metabolic clock right," Natasha had insisted.

Raghu was clearly infected with Natasha's zest and enthusiasm. He went through all of the talks on proteins, carbohydrates and fat, just like Natasha had done almost two years ago. He started his walks and counted steps in earnest. He performed the junk flushing exercise on his own.

The first four weeks went well. Raghu was sharp and always over achieved his targets. And with that focus, 1+1=11 focus was easy for him.

What struck him more than the nutrition and fitness was the consistency and regularity with which meals must be eaten and exercise must be done. He had taken his meals for granted, and postponing them had stolen calories from his body.

On Natasha's advice, Raghu had also controlled going out, socializing and eating out. Natasha had explained that in the initial stages, socializing was best avoided because even a tiny deviation could set up triggers to go back to the old ways of eating and upset the tight grip one needs with Nutrient Density and Metabolic Intensity. "A powerful beginning is crucial to crack your own 'becoming healthy' code. Lapses in the early stages can take one back several steps. After all, its years of a lifestyle of stealing calories that we are undoing". "Having said that", she continued, "take failures in your stride. And like Susan had said, Just move on, there is a lot to do. This is because the brain believes that your longest experiences are the way you want to be and takes you back there, unless you let it know firmly that you mean business," she explained. And Raghu always meant business.

"Raghu, this plan is working much better than I had expected," said Natasha. "You have been doing so well. You have started waking up at 7 AM, and you are making 10,000 steps already."

"And guess what, Natasha, my hypertension and diabetes medication doses have been reduced by half and I am sleeping a whole 8 hours from 11 to 7."

"That's because Nutrient Density and Metabolic Intensity are giving you the 1+1 =11 health effects. You have regulated your blood sugar, insulin, cortisol sleep,wake and craving cycles, and have eliminated a lot of toxins."

"I have overhauled by body right?" said Raghu smiling.

"My collection of music that is meant to accompany my meals is increasing. I have downloaded some thousand meditative tunes for meals. But you have spoiled me, you know. I couldn't sit at a noisy restaurant the other day."

Raghu continued, "I just have one complaint. I don't like the chairs at Cha Bar. They are not designed for long conversations; my butt hurts."

Natasha laughed.

"Let's have our info motivations at my private yacht. It's quite stress busting; let's catch the sunset there."

"Okay, then it will have to be on Tuesdays. Wednesday evenings are for my weight training workouts."

"Do you work out twice a day?"

"Yes, sometimes and you will too very soon."

"I cannot wait."

SEVENTEEN

Raghu's Progress

Raghu was getting stronger and leaner by the day. He had started weight training with Farzad. It had been a long time since he had complained of fatigue. The muscles of his arms, chest and upper back looked awesome, he felt. These days, he was happy to roam around shirtless in his wing of the house.

"Look how strong I've become," he said to Natasha, flexing his biceps.

"Oh, my God! That's some crazy strength in there."

"I'm stronger than you now," he teased.

"Okay enough, Raghu, let's get to the health dose of the day," said Natasha, bringing the conversation back on track. "I'd like to tell you more about MS."

"Yes, I could definitely use that info," Raghu affirmed.

"The starting point of MS, Raghu, could be obesity, insulin resistance or central obesity alone leading to insulin resistance, or a little bit of all of this with stress thrown in for good measure. However, the starting point for all of these are poor food choices and sedentary living. That is what makes the body catabolic, use its own calories and can upset the working of all or one of our

hormones. We need to focus on getting the food and exercise part right for life."

"I agree," said Raghu. "It takes care of everything. I haven't missed a meal in the last four weeks, and my energy, stamina, concentration and mood have improved. I am sleeping like a baby now."

Natasha's interactions with Raghu helped her to realize that the true skill of a health professional lay in communicating information to her client in the way that the client could best understand it. The communication had to be tailored differently for different ages and occupations.

"Raghu, athletes and bodybuilders are muscular. They have a larger portion of fat-free mass. Often, they weigh more than their ideal body weight. Some might even be obese in terms of weight. However, even if athletes appear superficially obese, they are protected from lifestyle diseases because they have less fat."

"Their bodies, I am sure Natasha, are anabolic, designed for growth. But tell me, what does fat-free mass comprise?"

"Fat-free mass is made up primarily of muscle, organs, bone, water and some essential omega fats. It is metabolically active as compared to stored fat. Fat-free mass has a rich supply of blood, and therefore, oxygen. Fat has neither and is, therefore, deemed not just unproductive when in excess, but even destructive. Thus, it makes sense to stay in the right fat percentage zone all through life."

"Yes, absolutely – more muscle, more youth, more blood circulation, and a lot more oxygen for *proinventive* health."

Natasha was happy that she had maintained her 18 % body fat. And Raghu continued to be enthralled by Natasha's incessant and animated stream of information.

"Central or abdominal obesity is a big reason for insulin resistance," continued Natasha. "Both overweight and thin persons can suffer from this," she added.

"Slim people can also be obese?"

"Yes, first because of their body composition, and second, because whatever fat they have could be stored in the abdominal area. This aspect of obesity has to do with the WHR."

"Like me," Raghu said. "It is just this that I have," he added, holding his abdomen, "but it has been good and I have been losing inches rapidly. My belt says it all. Anyway, how do you calculate the WHR, Natasha?"

"Measure your waist just above your navel, note down the figure. Next measure your hip at its widest part, and note down that figure. Then divide the waist number by the hip number. For males, the waist must be within 38 to 40 inches, and the WHR less than 0.9. For females, the waist should be less than 35 inches, and the WHR less than 0.8. Your WHR is about 0.95. Let's work on reducing this."

"But how does high WHR make a person insulin resistant?"

"Because of the visceral fat."

"What's that, Natasha?" Raghu asked.

"It's the fat in and around the organs in the abdominal cavity."

"Oh okay, you mean not the fat just under the skin. So, fat in and around the organs of the abdomen resists the entry of insulin."

"That's right, Raghu."

"So, over the past 15 years, insulin hasn't had a chance to enter my abdomen." They both laughed.

"Okay, let's move on, I have to submit my exercise physiology assignment."

"Natasha, is there anything else you do these days?"

"Yes," she piped back.

"And what might that be?"

"Counseling you," she said with a smirk on her face.

"Okay, okay, let's move on," he said.

"Middle-aged people," Natasha continued in their next conversation, "are also more prone to losing muscle and becoming over-fat especially, around the middle. "This can make you more prone to getting metabolic syndrome."

"Like it has with me," agreed Raghu.

"Raghu, let's understand that MS is not an overnight or a come-and-go condition. It builds up over years."

"Tell me about it. It's taken me 15 years to build my business and MS. Strange correlation that!"

"It would have taken several small metabolic upsets and several years, two to three decades at least, to build up the many conditions that presented themselves in this syndrome."

"Natasha, just a thought, is there a common thread or habit that ties all of these symptoms together? What is that one overarching metabolic upset that can culminate in this debilitating and self-destructive syndrome?"

"It's hard to say, but I would put my money on imbalanced blood sugar levels, which in turn upsets the way insulin works in the body."

As Raghu tried to assimilate that, Natasha added, "We will look into that next week. Your fifth week is up and you have lost two inches on your waist. I am not concerned so much about your weight loss; it's the abdominal fat that we must target."

"Raghu, today is going to be a bit intense," Natasha began their next conversation. Going over her notes, she said, "Stop me if anything is unclear, but please make every attempt to understand and internalize this information. That, according to me, is the most intelligent way to come to grips with your condition, and catapult yourself from this self- destruct mode."

"And *proinvent* my health, right?"

"You mean insulin is the vehicle that drives the glucose, which is derived from carbohydrate nutrition, to the muscles and other cells to give us energy."

"Yes, but the inflow of glucose must not be rapid or cause a spike," explained Natasha.

"Why is that?"

"High-fiber carbohydrate foods, such as non-starchy vegetables and brown rice, break down to glucose gradually. Cakes, biscuits and cookies break down to blood glucose very quickly because they lack fiber. And this is where the problem lies.When blood glucose rises suddenly, a large amount of insulin floods our blood circulation. A by-product of this is increased abdomen and upper body fat. Over time, increased fat stores make the cells that receive insulin resistant to its action. That's a double whammy, because even more insulin is released to compensate and the body keeps getting fatter and fatter in spite of what you eat. The other effects of this double whammy of insulin are increased blood pressure and dark patches on the neck and armpits."

"Who would have thought that simple carbohydrates can cause such complex reactions in the body?" Raghu said, bemused.

"Understand Raghu, that glucose is stored in the body primarily as fat in fat tissue and in small amounts as glycogen in the muscles and liver. Glycogen stored in the muscles and liver

breaks down to glucose in the blood only when we exercise. Insulin actually prevents this breakdown."

"So what?" asked Raghu.

"This prevents too much glucose from flooding the bloodstream. But during exercise, the glycogen provides the energy exercise needs and when these glycogen stores are emptied, they must get filled up."

"Oh okay, I get it. They are filled up by breaking down fat cells to glucose."

"And you know what? Weight training is the best way to effectively break down glycogen for exercise, and cardiovascular training done with some intensity can increase the levels of good cholesterol in the blood."

"Wow! So instead of taking a zillion drugs for every single condition, my nutrition and exercise can give me everything on a platter."

Natasha nodded. "It is important to exercise to use glycogen stores and refill them continuously with blood glucose. This is how exercise prevents blood glucose levels from rising."

"I understand now. Is there anything else I should know about insulin?"

"Just that a healthy insulin level also helps us to maintain adequate levels of protein, carbohydrate and healthy fats and retain and grow our fat-free mass. This way, the BMR, or the rate at which we burn calories, increases and the process prevents us from getting fat."

"Amazing!" Raghu said. "I didn't realize what I eat can have such far-reaching effects."

"Raghu, you know what I have found truly interesting about nutrition? The processes do the work. Our food and exercise must focus on improving the processes and chemical interactions

of nutrients and calories within the body. More than just the calories that go in, it is the chemistry of the food that goes in that is important."

"My client is doing so well, Susan," Natasha told Susan over Skype that night.

"How many weeks is he into the program?" Susan asked.

"Five weeks."

"He is down by 2.5 inches on his WHR, that's great! Any student is only as good as his teacher Natasha, but in your case, the student is much better than his teacher."

"Honestly, but it's because he is this millionaire. It's easier for him to get things done, get the cooks he needs and the shopping and the kitchen organized, unlike how it was for me. He does not have any of the practical problems that I had, and that's why he has been maintaining his 1+1=11 focus from day 1. He has not even faltered once with the diet. He has totally stopped eating out."

"Natasha, the reason he is getting the 11 score is because he wants to get it, not because he is a millionaire."

Susan always said the right things to have the last word.

In their next conversation on the yacht, Natasha spoke some more about the ill effects of simple or refined carbohydrates.

"Raghu, you know what is so scary for me about carbohydrates?"

"What?" asked Raghu, sounding worried.

"Carbohydrates are easy to refine and abuse."

"Yeah, because they taste so good, right?" Raghu winked.

"Just take a look around you. The bulk of junk and convenience nutrition, the bulk of empty-calorie nutrition is made up of white flour, refined sugar and artery-hardening trans fats."

"Sure! All the biscuits, instant noodles, white bread, cakes, pastries and brownies, burgers and pizzas... We know this, Natasha. We have been over carbohydrate literature earlier. What is the point you are trying to make?"

"For me, the scare is that, and correct me if I am wrong, most people consider refined carbohydrate nutrition normal nutrition. How many think that indulging in biscuits and cookies and refined sugar or even sugary fruit can cause illness? These are perceived as innocent foods."

"Yeah, I see what you mean."

"They won't even know when they are overdoing it. What is worse is that such foods are addictive, just like alcohol, but in a subtler way. And they corrode brain cells and weaken bone."

"You mean because of this perception, they act as silent killers."

"Exactly, and look at what has happened to this glucose biscuit, *chapati* and polished rice crazy sedentary nation of ours! India is the diabetic capital of the world."

"Methinks the sunset brings out the best in you, Natasha," said Raghu, with a wry smile on his face.

"It sure does," Natasha thought, reminiscing once more about the happy days with her mother.

"Exercise is a must to counter all of this," Natasha continued. "The bonus is regulated blood glucose, insulin and improved HDL cholesterol. Exercise reduces almost every single health risk. Take a look at this exercise benefit chart."

Raghu's Tweet that evening was, *"One more reason to exercise: it improves HDL or good cholesterol levels."*

EITHEEN

The Effects of Stress

Six weeks had flown by. The conversation this evening focused on the effects of stress on health. "Another factor that added fuel to this insulin fire of yours has been elevated levels of the stress hormone, cortisol," Natasha explained. "Take a look at how elevated cortisol can cause MS."

- Loss of precious muscle tissue and accelerated breakdown of protein including tendons and ligaments that are vital for the strength of the joints and spinal structures. This is because amino acids are required for conversion to glucose for energy.
- Severe drop in Metabolic rate because elevated cortisol levels reduces levels of DHEA, dehydropiandrosterone, testosterone, growth hormone and thyroid stimulating hormone.
- Increases carbohydrate and sweet cravings which in turn decreases insulin sensitivity and reduces transport of glucose to cells. The net result is an increase in Blood-sugar levels.
- In some cases appetite doubles which in turn increases the oveall amount of body fat and reduced metabolic rate; and a large amount accumulates in the abdominal region.
- Crash dieting also leads to chronic stress and elevated cortisol

> and this in turn sends a potent signal to fat cells to store as much fat as possible and much worse hold on to it. So stress lowers the body's ability to release fat from its fat stores to use for energy.

Raghu read the list a couple of times. "This is metabolic mayhem. I have put myself through so much for nothing at all. This is like being sandwiched between insulin and cortisol. Between the two, I am stuck with carbohydrate cravings and abdominal fat. Which of the two do you think came first, Natasha?"

"It is clearly a chicken-and-egg situation, but don't worry, you have the answers with the 1 + 1 = 11 focus. There are a couple of things, however, that you need to add to your Metabolic Intensity responsibilities to calm stress levels."

"What are these?" Raghu asked eagerly.

"Start with 20 minutes of progressive relaxation and deep breathing three times a week. Plan to have one mobile-free, work-free and computer-free day a week. In addition, focus on doing what you can do, such as walking 30 minutes daily and keeping your pedometer count by staying active through the day."

"I am already at 9,000 steps a day."

"Once your blood sugars have normalized and you are off your anxiety..."

"You are not doing the best job of keeping track of my achievements. I am already off my anxiety medication and I am sleeping well."

Raghu tweeted that evening, *"Ready to enjoy a mobile-free, computer-free, work-free tomorrow. Do not disturb. My metabolism needs rest."*

"There's something I forgot to mention earlier," Natasha said in their next conversation. "We agreed that it may take years for people to get full-blown diabetes and syndrome X, which is another name for MS. However, people may have an undiagnosed but serious condition during these years."

"What is this condition?"

"It's called pre-diabetes, and a lot of people have this for a long time silently. It exists in almost everyone for several years and can eventually culminate in Type 2 diabetes."

"I know; I had that. But how do you diagnose pre-diabetes?"

"A random blood sample usually does the trick. When blood glucose levels are higher than normal at 100 mg/dl, but not higher than 110 mg/dl, which is diagnosed as diabetes, the resultant condition is pre-diabetes."

"Pre-diabetes sets the stage for diabetes and is like a preparation for diabetes..." Natasha continued.

"Unless of course the pre-diabetic takes charge, and asks Natasha for help," Raghu chimed in.

"You bet," Natasha grinned. "The reasons for both diabetes and pre-diabetes are almost identical. Being overweight, eating refined, sugary carbohydrates and a sedentary lifestyle sets up the metabolism for pre-diabetes. Losing just 7% of body weight and exercising moderately for at least 30 minutes per day can reduce the risk of getting full-blown diabetes. Understand Raghu, that diabetes is a kind of strong statement of a lifestyle gone all wrong."

"I understand that now," Raghu said solemnly.

"We don't have to look anywhere," she said, "to improve ourselves, except learn from our bodies. Its desire for health is so deep and so strong. If only we matched that desire, we would have health and success in everything we did. And this is the meaning of 'health is wealth' Raghu, the cliché that most think has lost its punch."

"You have packed the punch right back into that statement," he said, giving her a pat on the back.

Raghu's next Tweet was, *"Rediscovered the punch in the statement, 'Health is wealth, and wealth is health.'"*

Eight weeks had gone by and Raghu was beginning to see the light at the end of the tunnel, just as Natasha had a year ago. His blood profiles had started improving; from HBa1c scores to fasting blood sugar levels, everything was beginning to turn around. The protein that he was including in all of his meals had improved his skin, and reduced the dark rings and bags under his eyes.

He was clearly *proinventing* his health. He had six more weeks before he went back to work to pick up the reigns of his shipping empire. Some of his YPO friends had mocked his effort for one reason or other. They found it effeminate and felt that the business was paramount in a businessman's life. But he did not care. He did not want that shooting pain in his heart; never again did he want to step into intensive care. Sometimes, he wished for the support that Natasha had from her family. But he consoled himself that even though his childhood heartthrob Smita was in a world of her own, he had Neha's graduation to look forward to. He was going to surprise her with a new body and health makeover.

However, someone else was surprised with Raghu's brand new physique. It was none other than his wife, Smita.

It was the last Friday of the month. Raghu had signed a contract for five new ships. Both Smita and he had been working on securing this for the past three years. They sat in the common living room, discussing some final formalities of this contract, and then went to their respective rooms.

Something came over Raghu. He impulsively messaged Smita, "Let's drink a toast to our new merger."

Smita went back to the living room. She was startled to see a bare-chested Raghu. *My God, here was a new man. Not a trace of*

the diminutive, always tired, wanting to sleep Raghu. She noticed his rippling and winged back and strong neck that kept his head held high. They clinked champagne glasses and he kissed her gently on the cheek. Smita felt the difference in his touch and breath. And then, they made love after what seemed like a lifetime.

Raghu was the dominant partner this time; he called the shots and made the right moves. Unlike earlier days, his sexual stamina and staying power had increased.

Smita had never experienced this kind of pleasure before. The pleasure that comes with health, she thought.

For Natasha too, a lot had gone right in the last two years.

She had beaten insulin resistance and pre-diabetes at several levels.

For one, she had overcome PCOS. Now that she had maintained her 18% body fat, several metabolic events seemed to have normalized and her period cycle was regular. Her gynecologist had told her to discontinue the pill and the metformin that she took to improve her insulin sensitivity.

As she completed the last of her health conversations on Raghu's yacht, she knew that she had fully awakened her desensitized cells to the abundance of insulin. She was not insulin resistant anymore.

Natasha looked at herself in the mirror for perhaps the n^{th} time in the day, and couldn't remember the last time that she had worn baggy and dark clothes to cover her folds. She looked so fresh and free in her denim shorts and fluorescent yellow spaghetti top. She checked her neck. The ugly folds from her earlier *Acanthosis nigrecans* were gone, and the dark, patchy skin around her neck and armpits had faded. *Anything is possible with the perfect chemistry*

of diet and exercise, she thought. She was really satisfied with the insights she had gleaned from helping Raghu and from her personal experiences, such as the fact that the whole was greater than the sum of the parts. Always. Just like the 1+1 = 11 health maxim. In a strange way, coming to closure with Meera's suicide and death had put an end to what Natasha had termed 'being in self destruct' mode and with Susan, there was a resurgence of a new seed of life, of hope and a continuous stream of the light of health at the end of a seemingly dark tunnel of obesity.

NINETEEN

Spreading the Message of Health

Raghu tweeted, *"Done with my 12-week sabbatical super proinventively, but guess what – I need another four-week extension."*

Raghu, Natasha, Susan and Farzad were seated in the conference room of Raghu's office, discussing Raghu's future plans for his business empire. Raghu had just declared that after he had put his house in order, he had to put his business empire in order.

Raghu was discussing how he would alter the infrastructure of his office and introduce the paradigms of Nutrient Density and Metabolic Intensity. Farzad was in this "Proinvent Health and Stop Sickness (PH&SS)" team, because he was training Raghu to pick up some challenging weights, who by now had lost his visceral fat and enjoying his new routine and was sleeping well. He was also beginning to look muscular and strong.

Susan was there because Raghu coaxed her into being it. He had made her vice-president, HR in his organization. One of her main responsibilities was getting Sriram Shipping Private Limited healthy. Natasha was, of course, the nutritionist on board.

"Let's set up a pilot project of PH&SS at my headquarters here, and then take it across all of my 29 branches, pan India. This transition has to take place over the next nine months," Raghu outlined.

Susan was thinking how the small step she had taken to help Natasha had snowballed into something so big, of making a business empire healthy. Hypothetically speaking, if many empires and CEOs like Raghu were to enforce this, the world would clearly be a much better place to live in.

They brainstormed, poured over spreadsheets, tables and management information systems to check attendance and correlation with sales. They took a long, hard look at the finances, the practicality, the motivation, and most important, the monitoring of adherence to the new philosophy.

Raghu was certain that staying fit would become part of his core business philosophy. Together, they analyzed the statistics of the average age of employees, how many were obese or underweight, how many were diabetic or hypertensive, how many exercised, how the sales team that worked outdoors would manage meals and so on.

After a long but productive discussion, the following aspects of the program were agreed upon:

- The health drive had to be cheerful, and the active participation of the staff would be sought at all times.
- The elevator would only be available from the second floor, even for guests. After all, everyone could do with some activity.
- Telephone lines would be shut off, and meetings and follow-ups disallowed during lunch from 1 – 1.45 PM, when everyone was supposed to eat. This could be challenging at first, but Raghu was sure that vendors and clients could work their way around this.

- Everyone from the clerical staff to the management had to send in their daily food recalls to the HR department for monitoring. They would also need to do an exercise that linked food intake to productivity. A lot of discussion went into the practical aspects of doing diet recalls and this exercise at such a large scale. But Raghu insisted that it had to get done, and it got done.
- Natasha was in charge of getting the canteen in order – flushing it of junk, changing the cooking oil, bringing in the various colors of nutrition and counseling staff in her own inimitable style. She would also plan the meals and hire intelligent chefs who would be committed to healthy cooking, no matter what. And of course, Natasha thought of getting Maharaji involved.
- Motivational messages would be created and displayed at prominent places in the office. Raghu planned to brief his ad agency with some of his ideas on this, such as 'Get health targets to achieve sales targets'; 'Get **proinventive** health'; 'Take the stairs'; 'Eat on time to get your salary on time' or 'Health first, wealth next'.
- Once a month, it would be mandatory to bring in family and friends for a meal together, to reinforce healthy eating values even at home.

The buzz of health was everywhere. After the meeting, Susan and Natasha decided to catch up, where else, at the Cha Bar.

"Our life couldn't have been better," Susan said happily.

"The day you rang my bell last year, Susan," Natasha said, "was like taking one small step to set me right, and look where that led to."

"And your small step to help Raghu has finally led to a business empire transforming. It's all happening, Natasha. We

are responsible for our own destinies; we are the makers of the 1+1=11 effect in all the areas of our lives."

"The best way to stay healthy is to make others healthy, as we are doing now," Natasha added. "But what if everyone cannot be as proinventive as us?"

"It is fine to make others healthy in your own small way; you never know when something you did or did not do for someone can strike gold," Susan pointed out.

"You are so right."

"On an aside, Natasha, am I mistaken or have you struck gold with Farzad?" Susan winked.

"Not Farzad, no."

"Is there someone else then?"

"Maybe, Susan. I don't know. Remember Varun who did not even notice me during our junk flush days?"

"Yes, that dinner when you hardly ate because you were upset."

Natasha nodded. "He called me out of the blue last week."

"Oh, that's exciting!"

"He heard about my fitness award. We met and... It was nice. I felt good with all the attention; he couldn't get his eyes off me. We've met a couple of times, and it has started to feel like the old days."

"Wow, that's awesome!"

"But Susan, I don't want any of this now, I have too much to do..."

"That's fine, sweetie, but life must go on."

"It is, I have to learn more, do more, motivate millions remember and stay healthy. I don't want anything to dilute my focus."

Susan nodded her understanding.

Natasha hastily changed the subject. "By the way, Susan, Nina *maasi* has taken an oath to stop feeding others, because she herself has become diabetic. I am looking after her health, and believe me, she is quite a sight when she exercises. But the best thing is that she is trying. I am sure your fitness fiesta talk would have helped her."

"Nothing and no one can pull us down when we live our 11 philosophy," Susan said, once again having the last word.

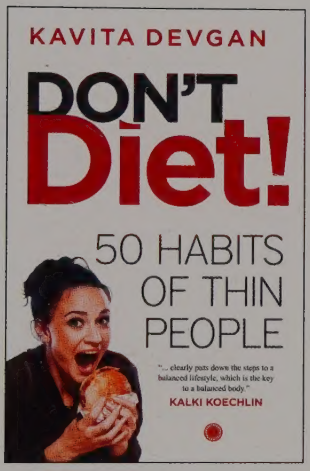
A week later, Mira aunty appeared in Susan's dream, or so Susan thought. This time, she looked happy. Yes, Mira was finally smiling.

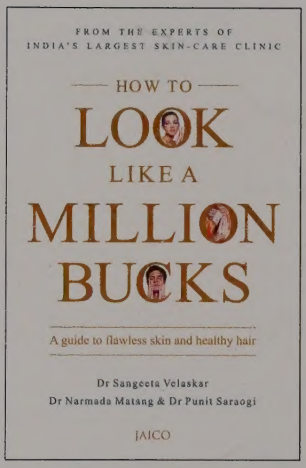
A candlelight dinner was laid out on Raghu's balcony. Smita had cooked his favorite healthy meal – quinoa pilaf, baked *rawas*, stir-fried broccoli and purple cabbage and olive salad.

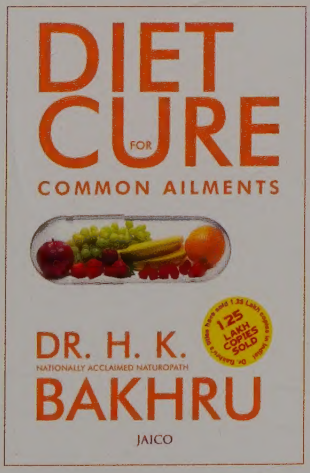
"I am so proud of you and proud to be your wife, Raghu," she said. "I am so excited about Neha's graduation. Our flight is scheduled for 10 AM tomorrow."

"Our flight?" quipped Raghu.

"Yes ours, my darling," said Smita as she went across to hug her childhood love.


KAVITA DEVGAN
DON'T Diet!
50 HABITS OF THIN PEOPLE
"... clearly puts down the steps to a balanced lifestyle, which is the key to a balanced body."
KALKI KOECHLIN

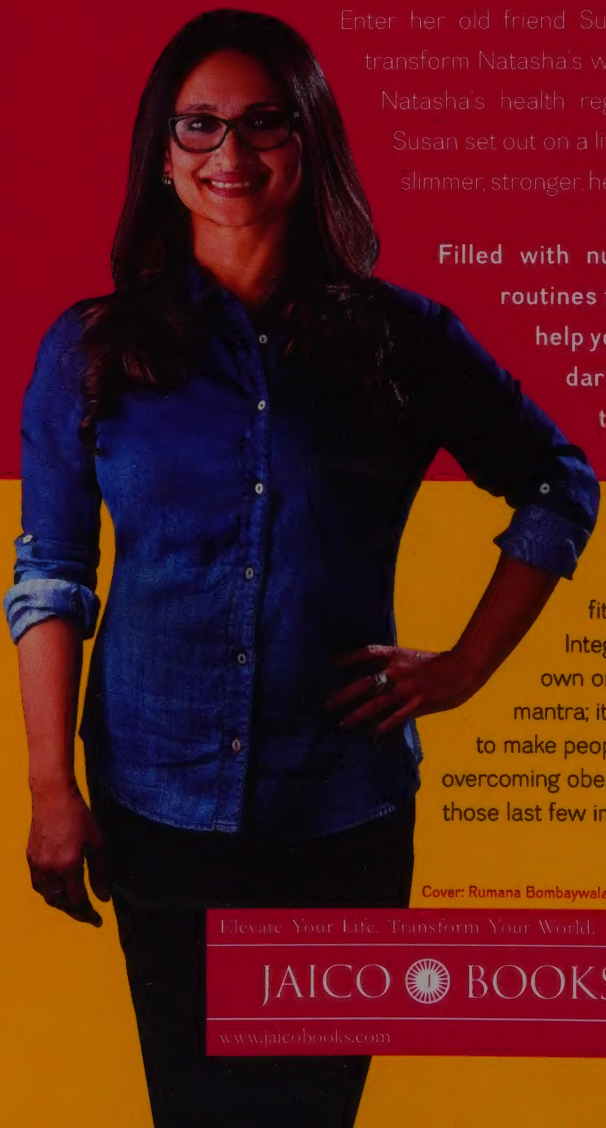

FROM THE EXPERTS OF INDIA'S LARGEST SKIN-CARE CLINIC
HOW TO
LOOK LIKE A MILLION BUCKS
A guide to flawless skin and healthy hair
Dr Sangeeta Velaskar
Dr Narmada Matang & Dr Punit Saraogi
JAICO



For more information visit www.jaicobooks.com

Woven around the theme of mental and physical fitness, *Who Stole My Calories?* by health-expert Madhuri Ruia is a marvellous account of how our weight issues affect our relationships, social life, career and all things that matter.

Former Miss Teen Natasha Sharma's life tumbles downhill after her mother's suicide. A perplexed Natasha alienates herself from the world and dives headlong into a junk- food binge. But instead of solace she finds herself some extra kilos, blotchy skin, mood swings and raging hormones. Natasha, once bikini fit, is now, depressed and obese, with no company, job or suitor.



Enter her old friend Susan who is on a mission to transform Natasha's world. Susan takes the reins of Natasha's health regime. Together, Natasha and Susan set out on a life-changing journey towards a slimmer, stronger, healthier tomorrow.

Filled with nutrition charts & workout routines to pep you up, this book will help you find your way through the darkest tunnels of obesity to the light at the end.

Madhuri Ruia is a top nutritionist, Pilates expert, fitness author and founder of Integym. 'Never give up on your own or another's fitness' is Madhur mantra; it helps her find innovative wa to make people fit whether it is by overcoming obesity, beating diabetes or losi those last few impossible-to-lose kilos.

Cover: Rumana Bombaywala, model; Suraj Landge, photographer.

Elevate Your Life. Transform Your World.

JAICO BOOKS

www.jaicobooks.com

Health

ISBN-13: 978-81-8495-402-9

₹ 299

KH-434-471